BY THE SAME AUTHOR

BRITISH INCOMES AND PROPERTY: The Application of Official Statistics to Economic Problems. (**2nd Ed.**).
P. S. King & Son.

WEALTH AND TAXABLE CAPACITY. (**2nd Ed.**) *P. S. King & Son.*

FUNDAMENTAL PRINCIPLES OF TAXATION IN THE LIGHT OF MODERN DEVELOPMENTS. (**2nd Ed.**).
Macmillan & Co.

BUSINESS STATISTICS AND FINANCIAL STATEMENTS (With C. Hewetson Nelson). *Modern Business Institute.*

STUDIES IN
CURRENT PROBLEMS
IN
FINANCE AND GOVERNMENT

AND

"THE WEALTH AND INCOME OF THE CHIEF POWERS"
(1914)

BY

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LONDON

P. S. KING & SON, LTD.

ORCHARD HOUSE, 2 & 4 GREAT SMITH STREET

WESTMINSTER

1924

"It was . . . the sense of my conceptions at that time; not an immutable law unto my advancing judgment at all times; and, therefore, there might be many things therein plausible unto my passed apprehension which are not agreeable unto my present self. . . . All that is contained therein is in submission unto maturer discernments; and, as I have declared, shall no further father them than the best and learned judgments shall authorise them: and under favour of which considerations I have . . . committed the truth thereon to every ingenuous reader."

SIR THOMAS BROWNE: *Religio Medici.*

Printed in Great Britain by The Whitefriars Press, Ltd., London and Tonbridge.

PREFACE.

THE studies included in this volume have, with two exceptions, either been printed in recent reviews or given as lectures and addresses on various occasions, and reproduced from notes or shorthand reports. They have one feature in common—they deal with subjects which remain alive in public interest. Two entirely opposite reasons are responsible for the selection of these particular papers. Some, by which I set little store, have been included because of repeated requests from correspondents; to these I accede on condition that other studies, whose message I imagine an unobservant public still needs without knowing it, are also accepted by them. In the one case it may be seen that the full utterance is less pontifical and has more reasonable diffidence than the brevity of newspaper reports might have conveyed; and in the other case, that statements which in bald summaries may have appeared to be without interest or conviction, possess a basis of reason and force. I do not feel at liberty at this stage to include further matter upon the capital levy, in view of my connection with official consideration of the subject. German reparations and Irish finance are omitted for similar reasons.

It is perhaps necessary to warn the general reader that there is very little actual exposition of received or recognised economic doctrine in these pages. The studies represent nothing more than the way in which my own particular experience and mode of economic thinking has reacted towards these problems, and are, therefore, only an individual approach to them. To obtain a complete view, they should be supplemented and, doubtless, often corrected, by the ideas of others. They were mostly made for general audiences, and technical contributions to scientific societies have been excluded.

A continual sporadic demand exists for my paper to the Royal Statistical Society upon "The Wealth and Income of the Chief Powers" which has been for some time unobtainable in the official journal, and out of print in separate form. It is accordingly reprinted here by permission of the Society.

J. C. S.

July, 1924.

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I.

ECONOMICS AS AN EXACT SCIENCE—AN APPEAL TO ACCOUNTANCY.[1]

In those pleasant little bickerings that sometimes take place between scientists of different orders, many are apt to place their studies in a kind of hierarchy and deny the name of science to those which are ranged below their own. The mathematician, revelling in the exactness of his results, the unimpeachability of his premises, and the fact that two and two have never been detected in the act of making any more or less than four (except under circumstances of extreme provocation at closing time), looks with some scorn upon the physicist who, in one generation, postulates ether and indivisible atoms, Newtonian gravitation and the conservation of energy and matter, and, in the next generation, seems to scrap the whole furniture and start afresh. The physicist and chemist in turn, with their wonderful facility for testing immediately any theory or hypothesis by isolating their factors in the laboratory, and wringing a ruthless " yes " or " no " from their witnesses, have something like pity for the medical man who, while he knows that quinine is good for fever, seems to them not to have the faintest knowledge why it is. In their eyes he has a " rule-of-thumb " procedure, evolved from a half co-ordinated experience, which is only a glorification of grandmother's remedies. To have to adopt the conclusions of such inductions, with a 50 or 60 per cent. accuracy in diagnosis and remedy, and at the same time to have no fundamental knowledge of the nature of the things dealt with, is to them a mere empirical fumbling after truth. The medical scientists and others like them, however, finding all human livers reasonably alike, and being generally able to alight upon the bile duct with commendable accuracy in all

[1] From an address at the Annual Conference of the Society of Incorporated Accountants and Auditors at Liverpool, October, 1921.

of us, whatever our size or colour or political party, do satisfy one condition of a science, for they apply their knowledge of the known experimentally to the unknown, with a remarkable degree or percentage of success. There is, of course, some difference of opinion amongst us as to how far it is they who do it, and how far we do it ourselves because we *think* they are doing it; but, at any rate, these people feel that they are certainly within the circle of the scientists who have an ordered body of knowledge from which they can derive certitude in generalisation and in application to new cases. They also are within the magic circle of those who can make reasonable play with the glorious uniformity of nature.

THE POSITION OF ECONOMICS AS A SCIENCE.

We are all familiar with the fact, however, that these people gibe at the so-called science of "Political Economy," which has one hand tied behind its back in its endeavour to catch an exceedingly intractable menagerie of human activities. The behaviour of men in the pursuit of wealth, by co-operation with each other of an extremely diversified nature, seems to defy any sufficient uniformity in causation or effect from which can be drawn a generalisation of the slightest use. It has been said that one can never tell what a lady will do in certain circumstances by the most intimate knowledge of what another lady has done in a similar case, nor even by what the lady herself did on a previous occasion. How much more incertitude, therefore, must be expected when we deal with every variety of the human race, of every nation and clime, of every degree of education and ignorance, of every environment, geographically and geologically, and with the widest range of social heritage. No exact science is possible, and it would appear that as fast as one has obtained some poor generalisation of the truth applicable to the movements and actions of a few the time element itself would have destroyed its validity. The future will never repeat the literal conditions of the past. How can there be a science in such a welter? And yet the human mind has struggled, with some success, during the last 160 years to construct one by postulating and isolating certain fundamental forces which seem general to a section of mankind; and then, by a deduction from these main premises, has ascertained the result of average human behaviour. When this method was first worked upon, in the hands of one of its highest exponents, Ricardo, the hedonic impulse was allowed to go unhindered to its uttermost ripple of influence. There is no doubt that, like most new ideas, it was trusted too implicitly and carried too far. It brought the science into disrepute with its "economic man," at whom moralists like Ruskin and Carlyle pointed the finger of scorn. The economist was right in replying that he was not dealing with morals, and that he was entitled to isolate his own set of economic impulses and facts, and make his deductions. He was wrong, of course, in forgetting this isolation at the end, and regarding his conclusions as those which really governed or resulted from human action. He forgot that in the act of isolating certain impulses in order to see to what they led, he, so to speak, "denaturalised" them, and that before his results could be applied to human society as postulates of conduct, or even as explanations of human events, he had to reintroduce them into a world where religious, moral, political, social, national, racial and legalistic influences would buffet his poor little bantlings of conclusions about until they were hardly recognisable. That is why the work of Ruskin and Carlyle is such a monument of error viewed from the point of pure economics, and such a monument of truth viewed from the point of the whole duty of man.

The Peculiar Difficulties of Economics.

Must we conclude, then, that economics is necessarily an abstract science which loses its validity immediately it is reintroduced into human affairs? Surely not. We have learned by now that an abstract train of reasoning cannot long be profitably pursued without being checked by the main limiting extraneous influences of law, custom, race, geography, etc. We have also learned that no simple economic judgment is possible. Every case is the nicest balance of judgment of those several forces. In these days we have added social psychology and the power of mass or Press suggestion as necessary elements in a complex of forces, which makes a judgment in economics one of the hardest mental disciplines the mind can attempt. Economics is, of course, one of the easiest branches of knowledge so far as absorbing a body of doctrine is concerned, but it is also one of the hardest in its application, because of the power that it requires of assessing and bringing together in one completed result so wide a range of different forces, varying both qualitatively and quantitatively. That is to say, economics strictly is not so much a body of knowledge as a mode of thought. It is in an unfavourable position compared with other branches of knowledge in that it possesses to hardly any extent at all the power of experiment, and the testing of any hypothesis is a matter of extreme difficulty. One cannot take the factors into the laboratory and isolate them from other influences that one is anxious shall not vitiate the results. You are dealing with human beings, both singly and in the mass, with all that vast complex of human passions which as soon as it is analysed by the scientist loses its reality. It is true we can "nose" into a working man's establishment and endeavour to generalise about his habits and his weekly budget. We may then get a sufficient amount of material of a homogeneous character from which to draw some satisfactory conclusions. But have we ever tried to do the same with the "self-respecting" members of the middle class, and to obtain a reliable body of knowledge as to the way men with £1,000 a year spend that income? We should no doubt get isolated budgets from sufficiently accessible people, but to secure enough budgets at one time, in one place, and of one class, to give a generalisation of an accuracy comparable, we will say, with the accuracy of a reasonable chemical investigation, would defy our efforts. If this is so with the human element on what we might call its simplest quantitative side—a thing that is susceptible of exact record, revealed in one aspect, more or less grudgingly, to the tax surveyor—to what an appalling extent are we likely to fall short on the more complex and less arithmetical manifestations of human economics!

Statistical Verification of Theories.

Some valuable discoveries were made during the war as to the relation between human fatigue, or physiology, and hours of work. For example, at one time the Government found that they were getting too much of a certain product, more than was actually required for the operations in the field. It was naturally suggested, therefore, that the overtime being done by the workers should be reduced and the hours of output be lessened. Dr. Collis warned his department that the effect would be the reverse, and the output would probably be increased. His warning was justified by the facts, for it was found that a reduction in the total hours of work would result in a sufficiently increased output per hour in the remaining hours to give an actually larger output than before. The point at which this process stops, and the steps in the relation between hours of work and output efficiency, are all beginning to become known as a part of actual industrial administration, but we need the actual statistical data for inspection.

Administration has not yet told us much about, nor, indeed, examined to any extent, the psychological effect of an alteration in the wage rate upon output. We know that in certain circumstances if we pay more we get more, but we also know there is a point at which an improved wage lessens output because the worker is aiming, not at the maximum amount he can get in money, but at a fixed figure with the least effort. There is little experience, however, of the quantitative nature of these generalisations, and experimental knowledge is of the crudest character.

The Need for Observation of Facts.

When we look over the whole field of economic teaching we shall find very little that has been the result of what we might call "pure induction." John Stuart Mill's elaboration of the characteristics of successful peasant proprietorship from the instances of various nations where it obtained is a classic example of induction, or something not derived by abstract reasoning from first principles. We know, too, of course, that the singularly accurate prophecies as to the effect of increasing gold supplies were partly deduction from abstract premises and partly the application of historical experience. But the fact remains that, broadly speaking, the first impulse is towards deductive reasoning, and the secondary test of its truth is its reasonable " fitness " under masses of conflicting conditions in practice.

Certainly, too, the Ricardian theory of rent, though it appears to proceed from a postulation of varying degrees of fertility and convenience in the geographical sense, combined with a postulate as to human desire to get the most with the least effort, was also at the same time a running comparison with the observed facts of life. The great controversy upon the historical school has happily died down, but we are all conscious that the peril to which that school is liable is the accumulation of enormous masses of historical facts undigested, and certainly incapable of yielding any generalised inductions of any value without keen analytical and even mathematical assistance. While we have to some extent agreed upon the place and dangers of the historical or German school, economists are not yet agreed as to the value of the purely mathematical or Cambridge school. Though mathematics has great value in the hands of a few economists who can use it as a kind of shorthand of thought, enabling immense numbers of separate factors to be handled in a logical train of reasoning, at the same time it is still dealing with abstracted premises. We shall be agreed that experience and deduction are mutually dependent.

As Dr. Neville Keynes has rightly said :

> While the method of specific experience is regarded as altogether inefficacious for the discovery of economic laws, and as incapable of affording independent proof of their validity, it is nevertheless considered to form an indispensable supplement to the deductive reasoning that constitutes the framework of the science.

The Use of Economic Jargon.

I may mention finally one fearful disability under which economics labours as compared with other sciences in its endeavour to become exact. It is that of language or terminology. Instead of having an exact terminology and using a language with strictly defined connotation, economists have to use the everyday terms of commerce and of life, with all their shifting meanings, and they can only give these a constant and precise significance for the purpose by adding a forbidding jargon of their own. The word "value," for example, has to be turned into "real value," "nominal value," "value in use," "value in exchange," "marginal value," and so on. Difficulties that can arise from the equivocal use of words in the application of a science are enormous, and in discussion they are disconcerting. One is reminded of the young lady in *Punch* who stretched out a daintily clad foot for her *fiancé's* inspection with the question, "And what do you think of my new shoes?" and his enthusiastic reply, "Immense!"

Economics without Tears.

This necessity for using common terms without confusion is not merely a drawback to the economist himself, making thought difficult, but, by reason of it, his course is hampered on all sides by well-meaning charlatans. Every one would recognise that to become a chemist requires years of close application, and the mastery of a special terminology and a special technology. The same respect is paid to geology, physics and engineering, but no such barrier exists for economics. It is about the everyday affairs that men are all mixed up in—and most men pride themselves on being both practical and businesslike—and it uses their everyday terms. The plain man is resentful if a book on economics does not yield itself to his comprehension without delay; he clearly regards the subject as one to be grasped without a severe mental discipline, by fireside reading of suitable literature. In such manner, indeed, on its descriptive side it can be studied, and many of its conclusions mastered. But the reading of such excellent books as Clay's "Economics for the General Reader" or "Gides' Principles" will no more make a man an economist than reading Ball's "Story of the Heavens" will make him an astronomer, and the one will no more entitle him to pose as an oracle on the remedy for the present exchanges than the other will to foretell an eclipse. It is one thing to be acquainted with the latest teachings and conclusions in any body of knowledge and quite another to possess its technique and be able to appreciate those results by a daily sense of their true application. So the serious economic worker finds to an extent that is quite unknown to the chemist and the astronomer his way both in discussion and literature encumbered with the litter made by dabblers and terribly positive people who "know from practical experience." Your practical man is often the most unguarded and dangerous theorist of all, because of his habit of cocksure generalisation from isolated and inadequate data, and his proneness to mistake visible and superficial currents for dominating forces.

> Few men [says General Walker] are presumptuous enough to dispute with the chemist or mechanician upon points connected with the studies and labours of his life, but almost any man who can read and write feels himself at liberty to form and maintain opinions of his own upon trade and money. The economic literature of every succeeding year embraces works conceived in the true scientific spirit, and works exhibiting the most vulgar ignorance of economic history and the most flagrant contempt for the conditions of economic investigation. It is much as if astrology were being pursued side by side with astronomy, or alchemy with chemistry.

No science demands, for its most successful pursuit, so constant a humility as economics—humility before facts rather than before men—and the personal experience of each man has to be kept in its place as merely one item in a large mass of data from which alone the truth can emerge.

THE PLACE OF STATISTICS.

What must strike us all, however, is the extraordinary dependence of what I might call a more exact science of economics upon its handmaid, statistics. Statistics, of course, is a science running through all the sciences in so far as they are dependent upon quantities, numerical measurements and tests, and the presence or absence of given factors susceptible of measurement. She is ancillary to all the sciences, and she will yet raise medicine, for example, from those empirical, hand-to-mouth lines along which it has so long toiled.

But an improved statistical technique in the handling of social data is absolutely vital to the further progress of economic science. With the awful example of Mill before me when he said that the main lines of the theory of value had been worked out, and Jevons and Marshall had not yet come, I may venture to say that we have almost reached a limit of profitability along the old lines of deductive reasoning, and that future progress depends to an extraordinary extent upon what I might call statistical verification. Thirty years ago, of course, statistics meant the arithmetic of addition, subtraction and multiplication. It meant, for example, the total trade done, the total profits made, the number of people born, the number dead, or the number of acres under cultivation. To-day, to most of us, it means vastly more. It now means the extent of the presence or absence of vital factors in a series of phenomena, and the presence or absence of some other factor in another series of phenomena, and the extent to which correlation may be shown to exist between the two in such a way that it can be said without much doubt that one factor is the cause or effect of the other, or, at any rate, that they are the separate effects of some common cause. The dependence of particular kinds of disease upon particular densities of population, or particular classes of employment, or particular ages of inhabitants, can be tested under severely scientific conditions by means that, two decades ago, were practically unknown. The wider use of the coefficient of correlation is likely to be a most powerful engine in the elucidation of truth. Its application to the social sciences in a verification of economic hypotheses may be more difficult because here something more than quantitative elements is involved, or these elements are hard to measure. Suppose we have to test our hoary generalisation that red-headed people are hot-tempered, or that Scotchmen are dense, or that Oxford men are "high-falutin," we must have a *measure* of those qualities of temper, or denseness, or of "high-falutinness" which can be expressed quantitatively before we can apply the coefficient of correlation. I assume also numerical grading for the auburn spectrum from delicate ginger to chestnut and for a table of Caledonian affinity, but the number of terms up at the 'Varsity presents no difficulty. As an example of such correlation in immeasurables, I remember the work of an American professor who recently tried to correlate the degree of education and proficiency in general knowledge with the belief in the existence of God, or in a future life; and he claimed to prove, in what we should call a correlative sense, that this belief diminished strictly with the degree of intelligence and knowledge possessed.

A second development of statistics, along the lines of the theory of probability, is in the important principle of "sampling." This is of the highest moment in the economics of business, where it is impossible to rope all the cases into an investigation. Under certain conditions 20 per cent., or even 5 per cent., samples may yield satisfactory and reliable results, and it is the aim of the study to-day to develop investigations along these lines. But if these conditions are not observed and certain tests applied, the results may be disastrous.

The Education of Accountants.

Some ten years ago Mr. Hewetson Nelson, at the Annual Conference of Incorporated Accountants and Auditors in Dublin, pleaded for certain improvements in the system of professional training. He asked for the broader curriculum which should give the lie at long last to the old saying, hitherto so true, that "the merely professional man is always a narrow man." He drew special attention to the then growing association of accountancy, economics and statistics in various University courses. The ideals laid out broadly by him led to an early consideration of the requirements of professional education by others, and the idea of a cultural addition to the curriculum, nearly always with some reference to economics, took shape rapidly thereafter. The ultimate decision of the Society to include elementary economics and statistics as well as costing in the professional examinations depended, doubtless, in the minds of some upon the more or less indirect effect which these subjects would have upon the "complete accountant" as a supreme technician; but others may have thought more of the cultural broadening effects on his mind than any pointed improvements in technique. Now such general breadth of view might doubtless be got by other subjects, such as history, political ideas, the principles of criticism, architecture, the methods of science, or particular sciences from anthropology to Egyptology, for there is no royal road to breadth of view and to the capacity to enjoy a full and rounded life rich in varied interests. But in the choice of economics one is doing something to get this effect with a direct economy and natural fitness. If we had to choose two subjects to broaden the rural postman's mind and life, should we take botany and natural history or conic sections and Italian literature? His everyday life gives abundant opportunities for the natural play of mind upon matters in the one case, but it gives no facilities in the other. There is not a little chance that botany and natural history might themselves get broadened also through our selection, for here and there we should quicken into life a really creative interest—some Robert Dick, or Benjamin Harrison, or Jean Henri Fabre, of the wayside. If two subjects serve our one purpose equally well, we may perhaps differ in our views as to whether we should choose the one in which interest would be daily *fed*, or avoid it because we feared to be "*fed up*"! One has indeed some sympathy with a man who has seen enough of figures in his daily avocation, and looks for colour, sound, rhythm or motion in his leisure. But the case is a little different when the victim of our attentions is to travel daily a road that none other treads, when, so to speak, his life is a rich monopoly of material, for there is then a new responsibility in the choice we are making. Such a monopoly the accountant possesses in his daily work when he handles the facts of economics.

What Economics can do for Accountancy.

There are obvious ways in which statistics and costing can make a better accountant. There are less obvious and direct ways in which economic thinking may also do so. In the higher walks of policy, in membership of any committees of national importance to which his professional competency may lead him, he must be the better for a large grasp of the problems in hand in their wide economic significance, and for being more than a legally trained "figure merchant," skilled in the presentation of numerical records. Even in a narrower sense, the development of accountancy with the evolution of industry and society is going to be better if its received principles are shot through with light from other angles than the legal, the financial and the technical. Think of the economic conception of capital as distinct from income, and then deliberate upon the sorry figure that is cut in the light of it by our modern fetish of a "safe" or "sound" balance-sheet, which lies in almost every line and yet is approved professionally because it overstates no assets and understates no liabilities, while it has valuable premises written down to negligible figures and reserves hidden in innumerable places, or profits "held up" and "tucked away." "The truth, the whole truth, and nothing but the truth," cannot be derived from the modern balance-sheet, so vaunted for its prudence; but prudence is just as possible without departing from what a balance-sheet ought to be—a faithful record of the employment of the total capital invested in the business, whether as an original outlay or retained profits, from which the *true* rate of profit on invested capital can be determined. Has the shareholder who wishes to sell his holding no rights as to some real knowledge of the value of what he is selling? But I desist from pursuing a topic that will doubtless array my readers solidly against me to a man. If it is said that all we are concerned with in the balance-sheet is that it is a final clear-up of the accounts, I have nothing more to say. If you say two balance-sheets of the same concern can be quite different and yet both be equally accurate and true and desirable, I have nothing to say. When I was a surveyor of taxes I often had people coming to me with sheets of paper and saying, "Well, I do not keep much of accounts, but I have made up that for the bank manager, and it puts the best face on things." One day I was talking to a bank manager friend, and he said that people often came to him with accounts and said, "Here is a thing I had to prepare for the tax people, and so I am at least as right as that." To one it was to be a maximum, to the other a minimum. Ought the balance-sheet to be a thing you can pull this way and that? If that is our idea, it may well be that it is destined to be radically changed in the next generation. Now, why the financial community should acquiesce in a condition of things in which a balance-sheet can be almost anything I cannot imagine. Auditors' certificates refer not merely to it being correct according to the books, but truly and faithfully representing the condition of the business.[1]

They have Eyes, but They See Not.

Theorising is a natural process, and we employ it in every walk of life. Although in scientific methods we may give

[1] These words at the time gave rise to considerable criticism, inwhich was mixed not a little misconception. So far as detail and publicity are concerned, considerable progress has been made in the last two or three years. In this connection I might refer to Sir Arthur Lowes Dickenson's paper before the Royal Statistical Society, April, 1924, on "Publicity in Industrial Accounts, with a Comparison of English and American Methods," and also to Sir Gilbert Garnsey's book upon "Holding Companies and their Accounts: a Study of Consolidated Balance-sheets."

When considering whether the modern balance-sheet is an informative and truth-telling document as distinct from a mere selection of minimum items of assets and maximum items of liabilities, placing the wealth of the concern at a minimum which, to a large extent, has little influence in practical life, I am well aware that much depends upon the view that is taken as to the fundamental objects and meanings of a balance-sheet. Perhaps I may quote from a recent work, "Business Statistics and Financial Statements," by Mr. C. Hewetson Nelson and myself: "If one takes the view that it is intended to exhibit the amount of the proprietor's capital that has been put into the business and the forms in which it is held, with any necessary discounting of the values of some of those forms in the light of the current facts, and to exhibit also how much exists in assets which is over and above that capital investment and may, therefore, be enjoyed by the owners without trenching upon capital, then the stationary position of goodwill is clear. But if the intention is to show the value of the business to be sold as a going concern, then the considerations raised are of quite another order, and justify writing up goodwill and even stocks to the full market value irrespective of actual cost. The latter view of the functions of the balance-sheet is not one which can safely be adopted in continuing business under continuing ownership."

I will only content myself by saying at this later date, that if we were not so imbued with the virtues of prudence in our balance-sheet, we should regard as absurd a statement of financial position which showed valuable premises standing at £1, and which was, in fact, a jumble quite indistinguishable in the relation of its parts between the disposition of original capital and the acquisition of subsequent profits and their absorption in the business.

observation a theoretic priority, nevertheless we often observe only what we look for, what we theorise over, and the two processes go hand in hand. But the ferment of thought and inquiry must start first and work upon the facts mentally apprehended—in rare cases only does a mass of facts passing through the brain generate spontaneously the co-ordinating hypothesis. We incline, as I say, to theorise over special things, which our minds then unconsciously select for observation. It is a sign of a great mind to inquire into little things. Darwin possessed the power to such a degree that he went on many fruitless searches. He himself remarks that we are blind to what we have not learned to look for, and illustrates from his own and Sedgwick's experience in Cwm Idwal before the Glacial Theory, when they observed literally everything except what is now as plain in its lesson as a burnt-out house.

Of course, fruitless theories and investigations are not really useless: they narrow the field of inquiry.

I doubt not that economics will have a salutary influence on accountancy. But what I am much more concerned with is, what is accountancy going to do for economics? The keys to many doors are in its hands, and there alone.

The Capital Charge against Accountancy.

I make this serious indictment of accountants.

Scientific accountancy has now been developing for some fifty years, but I cannot trace that it has yet made a single substantial contribution to economic science over its own field of the analysis of the results of industry, although it has practically a monopoly grip of the required data. I am not referring so much to costing details, which are hardly uniform yet, as to the ordinary trading results, balance-sheets and their details.[1]

[1] It has been said that municipal accountants have produced large masses of material in their public accounts. That is very true, but I should hesitate very much to summarise those results, to put them together in order to draw generalisations from them, without a close knowledge of the particular methods of finance of the corporations to whom they belonged, and the particular charters or laws under which they worked, their scheme of rating, the position of the borough, and a thousand and one other particulars which the economist does not understand and of which only those engaged in the work have a knowledge.

It might, indeed, be urged that accountants have made no contribution to the other sciences—theology, botany and so on. But they do not handle to any prescriptive extent, or in secret from the world, the special data or raw material of those studies. It is in the direction of economics that they can do a greater good than any other section of the community.

But a word or two upon costing. The extension of scientific costing methods is becoming daily more widespread, and each business is accumulating for itself a vast amount of valuable matter. I do not see any prospect at the moment of any general principles or deductions being arrived at by bringing all these results together and seeing what lessons they teach. The only effort in this direction of which I am aware is the very praiseworthy one made by Mr. Pearson in a paper before the Royal Statistical Society in 1920, in which he tabulated some valuable hypothetical figures.

A Costing Induction.

He refers to the importance of being able to estimate, within a reasonable degree of accuracy, what will be the total running charges corresponding to any assumed rate of expenditure in direct wages, and states he has

> formed the conclusion, from twenty years' careful examination of information collected at three-monthly intervals, that a parabolic relationship exists normally between running charges and direct wages—that is, the total running charges vary as the square root of the direct wages, with the equation as $y = Cx$. For general conditions it would be more correct to express the equation as $y^n = Cx$, the value of ^{n} being in the neighbourhood of $\frac{1}{2}$.
>
> This is a factor of first-rate importance, and provides a simple and continuous method of examining running charges, the most troublesome and dangerous of the four groups of costs.

Now this is a generalisation of great interest, but it is given from experience without actual data.

On hypothetical data Mr. Pearson stated :

> The great range of fluctuation in the percentage of profit on net output deserves the closest attention. It is generally recognised that cost per article increases as output diminishes, but

few people appreciate how small a reduction in output will turn profits into losses. The tables indicate that this takes place within 20 per cent. below normal output, and below that again the losses rapidly increase in amount.

Precise Data Necessary in Science

Of course, however valuable an impression of this kind which arises spontaneously from experience may be as an inspired guess, it has nothing like the same value in a scientific sense as the actual tabulation of a number of cases, and the indication that they have a modal relation to each other. Such a tabulation, and even a "tentative law" derived therefrom, would enable us to determine the position of any particular case according to whether it was operating at a half capacity or a full normal capacity, or beyond normal capacity, to test its ratios of oncost and various kinds of unit efficiency by general experience. Perhaps, however, I am not thinking so much of the practical utilisation of the general results in business. Successful business men may prefer to keep them to themselves, though, if we look at the national interests as a whole, and not at individual profit-making, this is a poor argument. But I am considering a more exact statement in the economic sphere of what is involved by working under successive conditions of increasing, constant, and decreasing returns, respectively.[1]

Now it is necessary to state one's ideas on two aspects. First, what are these precious truths that accountancy may bring forth? And, secondly, who is going to do the work, having due regard to the position of confidentiality in which the accountant stands?

The first is a big subject, and we must be content with a few examples simply stated.

What are Profits due to?

All students of the subject, and even casual readers, are now familiar with the conception of the "marginal business" which has been derived by deductive reasoning from the

[1] *Vide* particularly the discussion upon "Empty Economic Boxes" in the *Economic Journal*, 1922.

generalised conception of the principle of rent, and marginal utility. We know, in the abstract, that price is the figure at which the marginal business can just get a bare return upon the factors of production without going out of production, just as it also tends to be in equilibrium the cost of the last unit of production of other businesses, but I am not going to labour all the consequences of this theory. What I want to point out is that it has received little or no practical verification and examination in practice, though one may feel instinctively that it is true. The verification of it, and the discovery of its consequences in practice rest entirely in the realm of accountancy. Suppose we took all the concerns that are on the margin—*i.e.*, are making an economic rent on their employed capital but no profits above that—and then we take all those in the same trade or industry that are making something more than this rent—*i.e.*, the intra-marginal concerns. Their results could be reduced to a unit cost of production if necessary. In some we should find the amount charged for economic return upon capital higher than in others, possibly because the factory was erected in a comparatively disadvantageous position and the costs of erection were unduly high, or the lay-out was not good. Others will be influenced by a disadvantageous position, as shown by transport charges in the revenue account; others by disadvantages in distribution; others by excessive salaries, less efficient machinery, and so on. None of us has the slightest knowledge as to how the differentials of profit for profitable concerns, as compared with marginal concerns, are made up and classified, and to which elements of advantage most profits are due. Only concerted accountancy could answer these questions. Upon the answer might depend much for the future of industry.

A better acquaintance with those relative disadvantages, which all form part of the stream of production induced by a given price, would be of immense help in the extension of industry. Obviously the studious avoidance of any particular mistakes would have the same effect upon price as a sudden and magic improvement in the fertility of the worst and medium lands under cultivation. That is to say, there would be a tendency to lessen aggregate rentals or economic profits or marginal profits, and at the same time all prices would be lowered. Can any of us at present hazard a guess as to how many marginal businesses there are in a trade, and as to how far profits over and above economic interest arise through disadvantages in situation, excessive capital expenditure, excessive distribution costs, and inferior organisation respectively?

ACCOUNTANCY OBLIVIOUS OF ITS TRUSTEESHIP.

This is only one of the immense additions that might be made in applied economics, if accountants, as the trustees of valuable economic data, would free themselves from their present doubtless inadvertently "dog-in-the-manger" position. They have the figures; other people *cannot* use them, and if accountants will not, then we get nothing: economics continues its abstract deductions, and business blunders on by individual instinct.

RELATION OF PROFITS TO CAPITAL.

Again, the relation between profits and capital is very little known, except by general impression, for different businesses. We have all the theory about the return of interest required to cover extra risks, special amortisation, etc., but there is next to no real verification (of a scientific order) from the facts of life. Nor do we know what share of the total reward belongs to the different economic elements of risk, direction, management, and so on. We do not know how far the elements of friction, or the keeping of a trade within the secrecy of private hands in a locality, may avail to "dyke up," as it were, a special private trade away from the equalising forces of competition. We do not know much about the influence of rising and falling money values upon the rates of profit upon capital, or upon the absolute amount of profit. In all of these matters the large mass of the facts is denied to economists, but they pass through the hands of accountants. This valuable material is continually going through the hands of highly intelligent men, who are analysing and criticising it from their own point of view in regard to its textual accuracy, to its correctness in principle, to its conformity to standard in regard to law and accountancy, but who have never any thought as to what light it might throw either upon the economic generalisations already made, or what it may contribute to general knowledge. The only considerable body of facts of which I am aware in this country relating to the results of businesses, and aggregated on a sufficiently wide scale to justify any inference, is the *Economist's* quarterly summary of industrial and trading results. Here a gallant struggle is made, working on such intractable material as the final published balance-sheets, to reduce the results to comparable form, to aggregate them and extract the facts of general application. The series is extremely valuable, but every accountant will appreciate that it is a task undertaken in the face of the greatest difficulties, and can only have a limited degree of accuracy. Moreover, it fails to sample the great mass of smaller businesses in each class and the businesses under private management.

Profits Related to Output and Price.

I remember that Mr. Joseph Kidger, of Oldham, performed annually a very interesting and useful service in aggregating the results of 100 spinning companies and showing therefrom the trend of profits and dividends. The series extended for a period of over thirty years. If this is possible in such a case, what might not be done by concerted effort? It will be appreciated that, to obtain any reliable information underlying the great mass of facts about profits and capital, it is necessary to see that the profits are defined on similar lines and treated in a reasonably identical fashion for depreciation and other charges before any useful work can be done. When I was working upon the problem of the relation between changes in trade volumes and changes in prices, with corresponding changes in profits, for the Royal Statistical Society, I emphasised the fact that we had to secure uniformity of definition and treatment for *all* the cases dealt with over a wide area at any *point* of time, or similar uniformity for the cases in a narrower area for a longer period of time. Neither of these conditions can be satisfied by the information available to any individual business. It is only in the mass that individual idiosyncrasies are cancelled out. What we are after is a composite photograph, so to speak, with real underlying characteristics, and a true statistical analysis should aim at eliminating short-period fluctuations due to local and temporary causes, and bringing out the broad secular influences at work. When it has done this, we may, perhaps, focus attention upon temporary and local deviations, together with temporary and local disturbing causes, and so obtain a second valuable series of deductions by Mill's method of residues. Just as the scientist prepares his material and makes it, if you like, " chemically " clean before he begins to work on it, so the crude figures have to be prepared and standardised for use. That can only be done by the concerted action of accountants.

The National Capital.

Then again, in estimating the national capital, a subject now of such great importance, one of the most vital factors relates to the capitalisation of business profits. The method of capitalisation by reference to Stock Exchange values will, for reasons which I have stated elsewhere, appeal to you as having distinct limitations, but the weakest feature of the whole estimate is that relating to businesses in private hands. Here we are still content to treat an estimated proportion of the total profits as arising from capital, and to capitalise that proportion. It only requires one concerted action by accountants, with a well-placed sample, to settle this question, and to establish within close limits of error the correct amount of capital in relation to profits of such businesses.

The Preservation of Secrecy.

The problems of confidentiality, combined with comprehensiveness, have been very satisfactorily settled by combined action on many occasions before the Board of Referees for excess profits duty. Here there were a whole class of trade whose interests were to act together, and to prove their case in its generalities, and not in its particular points for each business. These businesses, naturally, could not and would not reveal any of their affairs to each other, but they were always ready to nominate an accountant who would reduce their data to uniformity and tabulate them in such a way that individual identity could not be discerned. From these tabulations emerged those general results and particulars about capital and profits, risks provided for and risks contingent, and many other similar features, from which the referees were able to see the broad economic conditions of each class of trade and make their rulings accordingly.

The difficulty arising through the necessity for preserving the confidential character of isolated statistics is at present at its highest point in the publication of, or the tabulation of data drawn from, income tax returns, than which there could be nothing more private. Experience shows that if a watchful eye is kept over sub-divisions of area and sub-divisions of class, matter can be so presented as to make it practically impossible for any individual instances to be inferred or isolated. Moreover, it is a common device of pooling arrangements or trade associations to entrust an independent accountant with the task of summarising a number of returns from jealous private firms, so as to reveal only their aggregated results for the common purpose. This alleged difficulty is always overcome satisfactorily when the occasion is sufficiently pressing.

It is by some such method as this that the concerted action to which I have referred would come into operation.

An Appeal for Research.

The exclamation will naturally come from many that this is a Utopian and preposterous scheme; that accountants are in business for a living; that they have hard work enough to get through the day's toil as it is; that they wish to leave the whole subject when they come to their leisure; and that they could neither afford the time nor the money to undertake abstract investigations in the middle of their daily task. I will grant all this, and at the same time say that I hope that out of the rising generation of accountants there will be at least 1 per cent. who have the real itch for knowledge, and whom the microbe of curiosity will give no rest. If this small number are the ones who conceive the ideas, formulate the plans, and act as the general dynamic, and then we have another 5 per cent. to 10 per cent. who are willing to give some time to following the lead of these pioneers by answering questions and, so to speak, doing as they are told, you will have a body of workers who will achieve all that I have in mind. Joined up in local study circles or in correspondence, groups of enthusiasts willing to give a little of their leisure time to the quest for truth and the advance of knowledge would in the space of ten years raise the economics of business almost to the status of an exact science.

We shall look anxiously at the promise of the recruit in accountancy. If in each examination there are several papers of outstanding excellence, showing a real capacity for economic thought, although the majority may have a bare text-book knowledge which cannot get away from the particular presentation there studied—the difference between a routine repetition of a Euclidean proposition and the capacity to do the riders upon it—it is clear that there will soon be in the profession a large body of economic thought which, even if initiative is rare, will respond with readiness to impulse and initiative in others and put itself at the service of the common good. It may be said that the proper function of accountants is to hand over when asked the data for the economists to work upon. That is like the case in which I go to a friend and say, " You would quite agree that my greenhouse would look all the better for a coat of paint ? " " Yes, very much better," would be the reply. But if I say to him, " Will you paint it ? " that is a different thing. We must not lose sight of human nature. We want the souls of the young men imbued with the pursuit of knowledge. We want them to feel that certain things have got to be prepared or purified and they are prepared to put their backs into it and do it. Such a job will be properly done only where the impulse comes from their own desire for knowledge. Those are the men who must seek, after they have themselves become impressed with what should be sought. Man rarely can observe save what he is seeking. The economist does not always know what is to be found. He cannot see what is wanted, or draw up and initiate it himself. It is the professional accountant who knows what can be done, what can be found, what is practicable, and what is not. The economist knows what he would like, and the student—the economist who is an accountant—learns that from him; but he alone knows how to summarise and tabulate. It is difficult, indeed, to draw lessons from a set of facts compiled by another person, and it is only the one who has been engaged in doing the work that knows the pitfalls, and if we say the accountant shall give the raw material, and another man shall draw deductions, little good can come of it.

If out of every five young accountants who "take an interest in economic and social questions" only one will deny himself the more exciting pleasures of debating societies, parliaments, or the grateful temperatures of public platform exposition, where generalities are dealt in and acuteness of intellect promoted, and that one will pursue the more prosaic path of establishing exact knowledge by passing in review the data that come before him in his profession, and presenting us with a coefficient of dispersion or a coefficient of correlation which will have a definite meaning to us, then in a decade economic science will have an exactness and precision that it lacks to-day.

I fully realise that the great majority of professional accountants over, say, forty years of age will scoff at my suggestions as "highbrow," idealistic and unpractical for a hard business world, but I am content to make my appeal to the rising generation and to pray for a co-operation between accountancy and economics in the future that will be fraught with the highest advantages to both. *Venit nox, quando nemo potest operari.*

II.

RECENT TENDENCIES TOWARDS THE DEVOLUTION OF LEGISLATIVE FUNCTIONS TO THE ADMINISTRATION.

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On occasions when this subject is mentioned, we usually find it expressed as " the *encroachment* of the administration upon legislative functions," or " the *usurpation* of Parliamentary functions by the departments," or by some such phrase. Common to them all is a tacit implication that there exists an absolute standard of correctness, a kind of righteous division of functions, fixed in the nature of the universe, which some malevolent or grasping or self-important interests are engaged in disturbing; that there is an infringement of the natural rights of man; that an undesirable development is proceeding under our very eyes; that the " price of liberty being eternal vigilance " it behoves us to be up and doing, and to check this nefarious tendency before its momentum becomes too great for us, and it takes us to constitutional perdition.

If you want to import into the matter still more definite implications, you will deal with it in the best style of a Press stunt, and refer to it as " the growing grip of bureaucracy."

Now are we right in begging the question that this is the proper angle from which to look at it? Is it not at least possible that, if such a movement as is thus implied actually exists, it is a normal development towards the more absolutely perfect, instead of away from it, and—having regard to the complexities of modern life—a development to be approved? I am not urging either point of view at this stage. I am only asking that we should not prejudice our inquiry at the outset by anticipating our verdict. It is conceivable that the constant hankering after Victorian standards

[1] The Inaugural Lecture delivered to the Manchester Regional Group of the Institute of Public Administration, October, 1923.

in this matter may be but little different from that attitude of mind which regards the motor car and the electric train as encroachments upon the standards of locomotion which are comely and convenient to a well-ordered universe.

We are warned that a movement of sinister import is going on in our midst ; the terrible doings of D.O.R.A. are flaunted before us.

We may come to think of the problem as one of evolution rather than devolution, and agree that if, with the coming of the problem, we also develop a proper official type to meet it, an administrator of professional skill and trusted discretion, we may have satisfactorily advanced beyond the stage of enduring the efforts of a crowd of overworked amateurs in the sacred name of democracy.

One cannot say that there is an abundance of reasoned literature upon this subject. Here and there, embodied in the dusky and sedate treatment of jurisprudence, we find reference to sub-legislative action by officials or non-elected bodies. One could, of course, follow the lead of the Pickwick hero who, in writing a thesis upon Chinese metaphysics, looked up " China " in the encyclopædia, and then referred to " metaphysics " and by a subtle mental alchemy of his own, combined the two ; so I might look up " legislation " and " administration," and by mixing them and serving them to taste, provide you with a dissertation upon administrative legislation, but such a course, I fear, would not be approved in Manchester.

As to " devolution "—well, one finds " delegation " used as a synonymous alternative, and I do not waste time drawing you a subtle distinction. Either will serve us sufficiently, for, like the wiseacre in " Alice," we may ask what is the use of words, except to mean what we choose they shall mean ?

Students of politics are familiar with the statement that the communities in the later Greek City States were the closest approximation there has ever been to the literal idea of democracy, in the truest sense self-governed, when every citizen took his share of the business of government. But Aristotle's deductions from the type of the City State lead us nowhere in the science of governing larger areas. When all the intelligent citizens could come at one time under the sway of the eloquence of a single orator, it was possible, had it been so desired, to regulate the smallest affairs of every individual by consistent and uniform law, and no names need have been absent from the legislative enactment, so that executive action and administrative discretion would have been hardly needed. But the problem of population alone, added to that of distance, and of variation in local conditions, would have led inevitably to enactments in less detailed and personal terms, to general expressions of will, the interpretation and application of which would fall to an executive, which must exercise some consistent administrative discretion in applying the enactment to individuals. But more important in its effects are the consequences of the increased differentiation of society and industry, the multiplication of human activities and interests, and particularly the fight against natural forces adverse to human safety and the utilisation of natural forces in the assistance of man. Most far-reaching of all, however, is the vast extension of the recognised scope of State activities. Even up to the nineteenth century it had not occurred to publicists that the duty of the State went far beyond the preserving of order within and repelling the enemy without. We picture Jeremy Bentham, with a vision of the possibilities of Government, revolting against Blackstone's smug satisfaction with the British Constitution, and bursting into fame with his "Fragment on Government." At a much later date we find the die-hard and last-ditch Spencerian-individualism in politics. An object lesson on our modern advance is a perusal of so recent a book as Jevons on "The State in Relation to Labour." In a century the State has developed from the State as policeman to the State as nurse, doctor, chemist, and benefactor, guide, philosopher, and friend from cradle to grave.

With every added activity has come the experience that laws without administrative agents are vain, and thence the gamut of inspectors and expert preventers or encouragers or checkers. These, in turn, form their accumulation of expert experience and knowledge, and throw up the subject matter of new legislation.

Now picture a Greek H. G. Wells dimly apprised of these developments and letting his fluid imagination range over the kind of modifications in Government and administrative machinery that they would inevitably entail. Be such an imaginative seer yourself, and classify the occasions and reasons for which a central legislature would desire or be compelled to devolve or delegate its comprehensive functions.

Local Variety and Detail.

First come those conditions in which the *variety and detail* of circumstances to which legislation will apply are so great and so little obvious to the legislator that he has no time to deal with them all properly, nor power to appreciate them. He desires to delegate powers to local areas, or to individuals who can give local and detailed study and apply general rules. To this class belongs the whole vast area of local government.

Unknown Future Conditions.

Second comes the problem of an *unknown future*, subsequent to legislation, legislation for a constantly moving set of facts—a world in flux. We may sub-divide here—

(*a*) Conditions may be set up or arise out of the legislation itself, which cannot be foreseen and provided for in exact terms. Some one must have power to deal with them and modify the general rules.

(*b*) Conditions may change completely and require a new view-point.

(*c*) Conditions may not change, but they may be quite unexplored until the administrative machinery of a statute studies them closely. In this sense the real future application of the statute is unknown.

In all three cases, unless the matter is to come back continually to Parliament, some one must be empowered to act as conditions require.

Complex and Technical Affairs.

Thirdly, the matters to be dealt with may be so *complicated* and *technical* that only experts can properly deal with them. As Mr. Laski [1] says :

[1] The *Journal of Public Administration*, Vol. I., p. 93.

The House of Commons may wish to protect authors, but it is wise to leave the details of international copyright to expert administration. It may wish to prohibit the sale of poisons, but sanity demands that the list of poisons be determined by the Pharmaceutical Society.

URGENCY.

In the *fourth* place *urgency* may require immediate action. It might be inexpedient to summon Parliament, or, if Parliament were sitting, it might be inadvisable to interrupt its consideration of other matters. It is obviously more convenient in the case of an epidemic or an outbreak of foot-and-mouth disease that the necessary orders should be issued by an official body under statutory powers, even if the action taken requires some distinct ratification.

POLITICAL FEELING.

Fifthly, it may be inadvisable that the details of administration should be made a part of the programme of *Party strife*. If a general principle has been carried by a majority of the House after strong opposition and, perhaps, prognostication of failure, it is obvious that concrete instances of practical difficulty would relight all the fires of controversy, with a chorus of " I told you so." The simple application of the principle, upon which the majority had agreed, in some local area or at some particular emergency, might raise over and over again in acute form all the heated arguments that attended the original debate, and thus make administration on judicial and uniform lines impossible. The opponents would, perhaps, be able to point to particular instances as illustrations of the evils they had foreseen, and it might well be that a general principle would never get a proper chance of establishment if it were always to be challengeable and discredited on the concrete instances as they arose in administration.

TWO CHIEF METHODS.

If these five reasons for the delegation of authority might occur to any thinker working out the probabilities in the abstract, we, I am sure, from our experience of the facts, can readily supply examples under each head. Now, a legislature desiring to relieve itself of pressure of work can delegate in one of two ways, either to another elected body—*i.e.*, elected *ad hoc* for a different purpose or for a smaller area—*or* to a State Department, a body of officials represented by a responsible Minister in Parliament itself. The public in general do not think much about the first kind of delegation, for it is accepted as free from all objections if there is a mere partition of functions between two elected bodies. But it is the intervention of the so-called "irresponsible official" which interests us here. The first kind of delegation would, therefore, not trouble us at all were it not for the fact that outright devolution is rarely found—*i.e.*, the local elected body is not often left with supreme power so far as the larger exercise of its functions is concerned.

First, there is the fear that in the eccentricities of local representation there may possibly be in some quarters an abuse of the powers granted affecting the resident citizens or perhaps the citizens in adjoining areas. In the second place, perhaps the stronger reason is the desire to have a reasonable amount of uniformity of general practice, consistent with the details of the local desire over the country as a whole, to say nothing of the necessity or desirability of a vehicle of common experience. Thus it comes about that the legislature desires to put the larger action of the self-governing units under some kind of central check, and whether it is the Prison Commissions, Lunacy Regulations, or Poor Law controls, history has shown that there has been wisdom in this course. The first kind of delegation, therefore—delegation to other elected bodies—does not escape our consideration by any means, because there is some intervention as between the two authorities, or, rather, there is the delegation to an official of some control or check upon local action. It will be necessary, then, for us to consider briefly the main questions that arise in this sphere.

Local Administration.

The application of statutory provisions to local areas may be roughly divided into two groups. In the first the code is settled, and the local authorities have the power to apply it at their discretion, with or without adaptive powers. Many public health provisions are of this character.

In the second group the Act merely has general provisions, leaving the details to be filled in by the subordinate authority. We may instance the Motor Car Act of 1903 and the Unemployed Workmen Act of 1905, and also the Housing of the Working Classes.

On the Continent we find, as a common system, that there is a delegation in respect of Local Government to a Government official, who co-operates or acts with the advice of committees or councils recruited and elected from local areas. Our system mainly, by way of contrast, is the delegation to local elected bodies under some kind of departmental check or control. That private Bills or local Bills can be obtained for every kind of public activity or alteration of local rights, means, of course, in modern times, covering an overwhelming mass of detail, in which, although there may be general principles operative, local divergences and interests are such that general principles cannot be automatically applied. So far as action of a local character has necessitated some kind of delegation of Parliamentary sovereignty, some of the earliest forms seem to have arisen in connection with enclosures (Enclosure Acts, 1801 and 1845), and in connection with public health questions and charitable trusts. The Board of Trade has interposed between the local applicants and the legislature, and given provisional orders, so that eventually the local applicants had virtually nothing more to do than to get such an order, and had only to take action with regard to Parliament in the rare event of opposition arising.

In the case of compulsorily taking over land for Local Government purposes, the Provisional Order actually stood unless there was a petition lodged by an owner or by twelve ratepayers. The Local Government Act of 1894, which was an important stage in many respects, also clearly marked a new step in the matter of devolution. County Councils were given power to apply the compulsory provisions of Land Clause Acts, no longer to be confirmed by Parliament but by the Local Government Board absolutely. Moreover, the Local Government Board was given freedom to make rules for its own procedure. Those interested in the judicial aspects will also remember that definite limits were placed to the power of Courts to intervene on technical grounds. Mr. Laski says[1]:

> When a power is conferred, it appears, the department concerned may use its own methods by deciding that it is wise to use the power. The absence of express enactment in the enabling Act means that the department is free to embark upon any procedure it pleases; nor will the courts enquire if such practice results, or can in its nature result, in justice. In such an attitude what Professor Dicey has taught us to understand as the rule of law becomes largely obsolete.

Of course, we are interested not so much in the devolution of power to other elected bodies subordinate to Parliament, as in the bureaucratic check on behalf of Parliament upon such powers. Whether we are quite right in looking upon this as a limitation to the sovereignty or power exercised by a local elected body, I doubt. To me it appears to be a very natural desire that there should be some co-ordinating authority in order that widespread anomalies and differences of treatment under general rules should not be allowed to grow up. In an important case we get the following judicial *dictum*:

> This case presents an illustration of the lengths to which Parliament had the right to go in ousting the powers and jurisdiction of courts. If a majority in Parliament were successful in passing an Act of Parliament which had that effect, then the jurisdiction of Courts of Law in matters in which some people might think it was desirable that even Government departments should be under the control of the courts was nevertheless ousted, and the court had no power to interfere with the decision of the department.

Under the evolution of what may be called "provisional order legislature," we begin with a brief setting forth of the "terms and conditions on which the order making authority will declare itself to be of opinion that the action in question shall be taken," until we get down to the Public Health Acts,

[1] The *Journal of Public Administration*, Vol. I., p. 95.

under which the Local Government Board, now the Ministry of Health, can even wholly or partly repeal, alter, or amend certain clauses of local Acts. In Scotland in 1899 an Act set up a new kind of devolution by letting the procedure for a private Bill be dealt with entirely by the Secretary for Scotland, who submitted the matter to outside Commissioners, who then recommended refusal or acceptance. The jurists declared that Scotland was thus deprived of the primal right to petition Parliament, and the measure has been criticised as not wholly satisfactory from the constitutional standpoint.

It has thus come about in this delegation of sovereignty delegation to local bodies—that the greater part of Local Government law is to be found in statutory rules and orders, and not in the statutes themselves—*e.g.*, the elected guardians have many discretionary and executive powers, but the "Poor Law Commissioners" keep them all in order. The Rules Delegation Act of 1893 sets out all this kind of legislation made by the rule-making authorities, and not requiring confirmation.

Now let us pass to the *delegation of the second order*—which is the detailed application of an Act to the whole country by departmental agents direct, rather than by locally elected bodies subject to a central check.

I do not intend to take up any of your time in discussing the wide differences that exist in different countries in political theory—*i.e.*, where ultimate sovereignty reigns as the prerogative of the Crown or ruler. These differences, of course, are the fundamental reasons why the powers of the administration and their practice vary so considerably. We have, for example, nothing similar to the sub-legislative powers of the United States President, and on the Continent officials have very wide powers of making ordinances or decrees.

It is well known as a remarkable example that in Italy in the final text of the criminal code there was never any submission to the Legislature, for after debate they left it to the executive to draft the code, and then the whole code was enacted without discussion by royal decree.

Foreign observers have exaggerated the extent to which our own Parliament goes into details and tries to provide for every conceivable case in the operation of an Act. Legislators have the right to do this, and in the past they have often tried to do it, and they still try to do it in certain circumstances where experience has not taught them better, or shown that some alternative method is at hand. Mr. Merson gives as a model,[1] which it is not desirable to adopt, the Seeds Act of 1920, where the Minister may, "after consultation with representatives of the interests concerned, make regulations generally for the purpose of carrying this Act into effect," and, in particular, for prescribing the seeds to which the Act is to apply. But, indeed, what other course is open to Parliament on a matter in which expert advice is necessary? Parliament has, indeed, left to departmental regulation all the administrative details, including even the *scope* of those principles, which it has confined itself to stating on general lines.

It has been said that Parliament does not *govern*, that England is governed by the Executive. Parliament suffers from a double limitation of time and attitude which effectively precludes it from dealing with anything more than general principles.

The mere index to the rules and orders in force—references only and not the text of the rules themselves—runs to a volume of well over 1,000 pages, while the annual volumes of the rules and orders themselves, of a public character, and not including the local and temporary ones, are over ten times the size of those required for the statutes during the same period.

Mr. Frank Merson has very well said:

> Departments are, perhaps, somewhat too ready to assume that they command public confidence, and it should be one of the principles of practical administration, to be borne in mind by all officials, that no steps should be taken which could in any sense be regarded as an exercise by the Crown of arbitrary power. The wide powers now granted by Parliament to Government departments render it most important that they should exercise them in such a manner as to inspire public confidence.[2]

[1] *The Civilian*, May 12th, 1923.
[2] *Ibid.*, May 19th, 1923.

The ordinary citizen cannot find his duty in the statute. As Dr. Carr says:

> When must he alter his breakfast-room clock or his wrist-watch for summer time? It is not an Act but an Order in Council which tells him. How does he register his motor car, and on what part of the car must he display the licence and the identification marks? The Roads Act is silent, or merely refers him to regulations to be made by the Minister of Transport. How much postage will be charged on a 3½-ounce letter to Cambridge, or a parcel of newspapers to Paris or India? All that the Post Office Acts say is that the Treasury may fix these charges on the representation of the Postmaster-General.[1]

As a detailed concrete illustration of powers wielded by a departmental authority, let me take the question of coal-mines control as originating in pre-war conditions and as subsequently modified. The Mining Industry Act, 1920, transferred to the Secretary for Mines the powers in regard to mines previously exercised by the Home Office and certain other departments.

The law (Coal Mines Regulation Acts, 1887, 1908, etc.), in relation to mines of coal, stratified ironstone, shale, and fireclay, was codified and modernised by the Coal Mines Act of 1911. This Act lays down specific requirements as to the management of the mines, makes definite provision for the health and safety of the workers in respect of ventilation, safety lamps, shafts and winding, travelling roads and haulage, support of roof and sides, signalling machinery, the use of electricity, explosives, the prevention of coal dust, etc., confers on the Government inspectors power to examine or inquire into the state or condition of any mine, and gives authority to the Secretary of state (since transferred to the Secretary for Mines) to make general regulations regarding the conduct of mining, *which may amplify any of the provisions laid down in the Act, and also amend certain of them*, as well as to make supplementary special regulations in respect of any particular mine.

Under this authority general regulations have been issued from time to time, after consultation with representative bodies in the industry, prescribing in greater detail the con-

[1] "Delegated Legislation."

ditions to be complied with in almost every branch of mining practice, but more particularly in regard to the use of electricity and explosives, precautions against coal dust, the provision of rescue apparatus and sanitary conveniences, and other matters concerning which the instructions laid down in the Act are less precise.

Section 116 requires a dispute on the principal matters which are the subject of regulations to be referred to one of the panel of referees appointed under the Act, and it has been the practice of the Secretary for Mines to allow responsible parties, *i.e.*—the Mining Association or the Miners' Federation—to argue any objections they may have to proposed regulations before the official referee, whose decision is binding on the Secretary for Mines. A substantial number of questions come before the official referee in this manner, but probably not more than 25 per cent. of the total. Proposed regulations involving matters of importance are invariably discussed with representative parties before the Secretary for Mines decides as to their final form.

Apart from the inherent British dislike of official regulations, there is very little criticism by the industry of the action of the department under this statute. There is some complaint as to the inevitable number and complexity of the regulations. For instance, the manager of an efficient colliery cannot see why regulations should be necessary to force him to manage his pit in conformity with a standard which he either had adopted or would adopt of his own free will. He forgets that there are always a small number of unsatisfactory owners and managers who will forsake sound mining practice if thereby they can derive some temporary advantage, and that these people can only be restrained by force.

The Secretary for Mines is not only empowered to make general regulations, but Section 86 gives the further power by regulation to vary or amend any provisions of the Act which relate to safety in mines or to the employment of horses underground. I will refer later on to this comprehensive power. *The Mining Industry Act*, 1920, confers on the Secretary for Mines powers for making regulations in respect of metalliferous mines similar to those already possessed by him in respect of coal mines. After consultation with representative parties, or holding such inquiry as is thought fit, he may make regulation for drainage schemes and apportion any necessary expenditure between the colliery owners benefited. The regulation may amend or repeal any local Act of Parliament dealing with such drainage. Under this section the long-standing problem of a drainage scheme for the Old Hill district of South Staffordshire has been successfully solved.

Part II. of the Act was an endeavour to devise some type of organisation of the coal-mining industry which would give effect to the highest common factor of the various reports of the Coal Industry Commission. The root principle of this scheme was the regulation of wages on a district basis by reference to the profits of the industry in each district, together with a system of joint committees and boards designed to provide simple and uniform machinery whereby all problems affecting the workmen, including the regulation of wages, the conditions of labour, output, and questions of safety and general welfare could be dealt with in an efficient and co-ordinated manner. It was also provided that the decisions arrived at by the industry itself through the medium of this machinery might be formally recognised and given mandatory force by the Secretary for Mines.

During the passage of the Bill through Parliament the miners, at that time committed to nationalisation and opposed to district settlements, formally refused to co-operate in any way in working the Act. In view of this attitude, a section was necessary (Section 17) providing that the scheme of Part II. should cease to have effect if, after the lapse of one year, it were to have been rendered abortive by the refusal of either party to co-operate in setting up the requisite machinery.

After the settlement of the strike of 1921 the miners withdrew their opposition, but the owners then declined to co-operate in the scheme, on the ground that it was unnecessary and undesirable to convert the terms of settlement and the National Board—both of which were voluntarily agreed to by owners and miners—into a compulsory scheme under the ægis of the Secretary for Mines. Although the miners pressed for the retention in force of Part II., motions to that effect were defeated in both Houses, and with the lapse, on March 9th, 1922, of the thirty days prescribed in section 17, the principles of Part II. of the Act ceased to have effect.

TAXATION.

In matters relating to taxation the Constitution has, of course, been particularly rigid. Only the House of Commons has the power to impose Imperial taxation, and any kind of delegation of this authority would be hotly resented. Local bodies and officials to a very large extent are responsible for working the taxing statutes. But their powers are very limited, and the taxation of individuals proceeds according to strict rules and cannot be varied. It is true that facts have to be determined, but it is only facts, and not the application of the law to those facts that is capable of judgment outside the House of Commons. We do not ordinarily, therefore, find very much delegation of legislative authority to officials in revenue matters. In the earlier Acts, however, even the forms of return were prescribed by law, but with the evolution of a strong and expert department it has been found to be quite consistent with public liberty to allow such a department to prescribe the forms which are necessary for the law to be carried out. But the rule-making power has, in the last few years, spread even to this class of statute. I remember very well soon after the outbreak of war, when Mr. Lloyd George, as Chancellor of the Exchequer, decided to double the rates of tax for the last half-year, that we had to draft for the Act the necessary rules for the deduction of tax from dividends and annual payments. To do this neatly and briefly was not easy, because the deduction question in itself is highly technical. What was wanted to be done was perfectly clear to every one, but rules to cover all the cases were not easy to put into a statute which could be understood by every one, or which could be easily made intelligible to the House of Commons. An alteration in the rate of tax in the midd'e of a financial year sounds simple enough, but it plays havoc with the Income Tax statutes. Either the draughtsmen did not like the job or the Chancellor did not care to explain it word by word in the House, for, at any rate, the Inland Revenue were given power to make the necessary rules, and I remember that this was not easy at the time, although, as usual, looking back on it, it seems simple enough now that it has been done successfully. In my zeal I wanted to create a precedent by putting an algebraical formula into the rule, but my more cautious colleagues overruled me.

When we came to the Excess Profits Duty special considerations arose. First of all, we did not know the precise circumstances to which the Act would apply; we were dealing with a moving problem, and a problem only partly known. We were dealing, moreover, with a problem which would change its character from time to time, and a problem above all in which the tax itself would modify or make new conditions. When you have a tax of that weight you may be sure that in itself it becomes an important economic factor. Now it is often inadvisable in a taxing statute to be too explicit as to the treatment of things when they arise, if the knowledge given will enable the taxpayer—I will not say to *evade* the law, but adjust his conduct to its niceties. In vain is the net spread in the sight of any bird! Often it had to be urged upon Ministers that it was impossible to do anything *prospectively* in a tax like Excess Profits Duty. Any change had to be retrospective, otherwise accounts could be closed or carried on without closing at the will of the taxpayer, and business could be adjusted with the full light of the actual liability upon it and, therefore, not a process strictly according to nature, but conditioned by these artificial considerations. This Act, therefore, made three very important departures in the matter of delegation. First of all, it delegated to the department the power to make *rules* for procedure after the leading time limits, etc., had been laid down in the Act itself. In the second place it conferred quite a considerable number of discretions to the Commissioners of Inland Revenue, such as a discretion to decide in individual cases the length of an accounting period, or the amount to be allowed as managerial remuneration—discretions which should be exercised uniformly by a single authority, and in the light of facts as they revealed themselves. In such instances, even if it had been possible for Parliament to legislate for all the different circumstances in advance, it was highly undesirable to present the taxpayer with too clear details and to enable him to accommodate the conduct of his business to a wholly artificial compliance with the line of least liability.

The third important departure was the delegation of powers to an independent Board of Referees, who were enabled to substitute by order their own percentage for a class of trade or business for the percentage given in the statute. This was done because the point to be settled was considered to be a highly technical one, requiring precise commercial knowledge. They were designed to be a body to make *ad hoc* investigation, and the Inland Revenue had no official or statutory place in their deliberations. As a matter of fact, however, they could never have functioned without the actual co-operation of the official body in criticising the claims made, making expert technical and statistical researches, for which an unpaid amateur body, however eminent, has no faculty.

The Board of Referees quickly put the department in the box as defendants for the Crown, and confined themselves, in the main, to deciding between the parties, by compromise or otherwise, on the evidence submitted.

It is a curious thing that many attempts were made by isolated Members of Parliament to extend this delegated power of deciding the taxation of the subject by giving the Referees, or even the Board of Inland Revenue, power to deal with *individual* cases, or hard cases, and it was the Chancellor and the department that always resisted this unwarrantable constitutional extension of special powers.

Devolution Since the War.

The conditions of the war period were so exceptional that we should expect to find Parliament and the Cabinet with the main burden of conducting the war upon their shoulders, throwing off all that they possibly could, and trusting other authorities much more than they would, in the ordinary course, be inclined to do ; delegating their powers to State departments without reserving the power of confirmation or revision. Thus local authorities borrowing during the war had to obtain Treasury sanction, and those investing in war loans or making capital expenditure had to get the authority of the appropriate Government departments. Various public undertakings that were working under orders or statutes with time limits naturally got into difficulties during the war, and the power of waiving the time limit or of extending the time was conferred upon a department, thus making it unnecessary to apply for new Bills. Quite an unusual strain in every economic direction gave rise to similar problems. Thus the Gas Standard Act of 1916 put the question of illuminating power into departmental hands, with special reference to the economic stress set up by the manufacture of munitions of war ; and, again, the great alteration in prices made it necessary that the statutory provisions which affected the charges for trams, gas, etc., might be temporarily modified.

In the alteration in the electoral suffrage we find very wide provisions in which the departments were allowed by order to do " any matter or thing which appeared to them to be necessary "—that was, during the war period for the preparation of registers and the conduct of elections. In the discussion of devolution in general, it is not, perhaps, fair to dwell upon the deeds that were done under D.O.R.A. Conditions so wholly exceptional should not be taken to indicate any tendencies of a permanent character. Nevertheless D.O.R.A. left her mark upon subsequent legislation, for since the Armistice there has been a distinct modification in the way in which devolution has been conferred. Instead of giving outright powers to authorities and departments to perform some legislative act, the legislature endeavours to retain some check or reference. In the Ministry of Health Act, 1919, there is an attempt to classify this check according to the importance or class of orders made—*e.g.* (1) a mere settlement of the date when a provision is to commence to operate does not require revision by any authority, but

(2) where fuller effect is given to statutory changes a check is provided, and publicity is to be given in draft form and for thirty days before Parliament, and the scheme is subject to an address in the case of objection. The third class, such as transfers of departmental powers not provided in the statute, require a much closer confirmation. They have to be the subject of a special resolution approving the draft in both Houses of Parliament.

In the Ministry of Transport Act, 1919, there were several new features. Draft orders have to be scrutinised now by Parliamentary officials, such as the Chairman of Ways and Means—a substitution for the procedure to which private Bills were subjected. Corporate enterprises had to apply to the appropriate departments for their powers in lieu of getting private Bills, but Parliamentary supervision was theoretically provided.

Under the Electric Supply Act of 1919, the Electricity Commissioners' orders require a kind of double sanction; they have to be confirmed by the Board of Trade, and then by resolutions in Parliament. In the same way the Gas Regulation Act of 1920 requires the special order of the Board of Trade to be the subject of resolutions in both Houses.

Mr. Quekett observes that it is impossible to pronounce on the merits of the new form of conditional devolution until a greater amount of experience has indicated the merits or demerits. He considers it to be open to objection that these things should be the subject of general debates on the floor of the House.

Devolution, now, is of a mixed character, proceeding partly from a "mood of distrust," and it is doubtful whether the expedients provided will be as suitable as the old ones—such as Select Committees sitting upon private Bills, or the ordinary statutory confirmation of provisional orders. Mr. Quekett suggests as a solution that there should be a group of provisional councils subordinate to Parliament.

If it be agreed, as I think it must, that delegation of authority must continue, and can continue with advantage, we are left entirely with the problem of safeguards—measures to ensure that the actual original intention of the legislating authority shall be continuously carried out. It is only where such intention becomes departed from that abuse arises. It is difficult to improve upon Dr. Cecil Carr's five-fold treatment :

First.—Delegation should be only to a trustworthy authority which commands the national confidence.

Second.—The limits within which the delegated power is to be exercised ought to be definitely laid down.

Third.—The Safeguard of Interested Advice.—This is the case where action cannot be taken until advice has been, at any rate, heard—until certain bodies presumed to be affected or to have expert knowledge have been consulted. Special Advisory Committees are all the fashion in this respect, as we find under the Dyestuffs Import Regulations Act of 1920 or the Mining Regulation Act of 1920, where the Board of Trade and Ministry of Transport are duly helped by committees. Other cases in which the Acts do not specify that people are to be consulted provide for interested people being entitled to object, upon which a public inquiry must be held. The Trades Board Act illustrates this principle.

Fourth.—The Safeguard of Public Notice.—If the price of liberty is eternal vigilance, then the public ought always to be reading notices. What will it make of one which says : " Provisions of the regulations of 1914 and the corresponding regulations applicable to so and so shall, so far as they are inconsistent with these regulations, cease to have effect " ? Such a notice requires a very considerable and detailed study of the whole problem before the real effect of the new orders can be understood. If the matter is a semi-political one, and some highly interested body, such as the Land Union, for example, is watching it closely, partly for political reasons or political strategy, then, no doubt, these notices will have their required effect. But in a more general case what is nobody's particular business will not be done by any one !

Fifth.—The final safeguard is the machinery for revocation or amendment. Sir Lynden Macassey has said that when a department has issued a provisional order, and is responsible for the administration of the Act under which the order is made, it may also be acting in a judicial capacity when it decides what order shall be made after inquiry of the interests affected, and finally, in issuing the order, it performs a legislative function. He argues that on these grounds there is a conflict of interest and a confusion of capacities. It cannot easily be reconciled. This may be indeed the case theoretically, but we are entitled to ask whether, in practice, any serious difficulty arises.

The Courts cannot interfere when once a Provisional Order has been scheduled in a Bill put up to Parliament for confirmation. If they did it would be held to be interfering with Parliamentary functions, but, after all, it is Parliament's fault if this safeguard is only a formal one. An attitude of distrust, which, by constant challenge, is getting numerous "mare's nests" but which occasionally "comes home" with a real score, will act as a kind of moral influence upon departments. This is, perhaps, the most that can be said for this form.

A *Times* leading article recently said:

> Parliament has developed a method of passing measures which contain merely bones, and Government departments are given the power to supply any sort of flesh that they may think suitable. . . . The delegation by Parliament of law making to Government departments . . . now seems to have become an otiose habit. It has been seen more than once that where the legislature gives the executive an inch it is prone to take an ell. In 1920 and 1921 attempts to tax whole classes of the people by rules and regulations which purported to be made under emergency statutes were happily thwarted by the courts of law.

In the new Rating Bill that is before the public at the present moment for consideration, we find the following clause:

> If any difficulty arises . . . in bringing into operation any of the provisions of this Act, the Minister may . . . do any other thing as appears to him necessary or expedient . . . for bringing the said provisions into operation, and such order may modify the provisions of this Act so far as may appear to the Minister necessary or expedient for carrying the order into effect.

The Times refers to this as the intermittent and formidable interference of the Minister of Health, and says that even those who approve some of the changes will be startled by a clause which threatens to reintroduce the worst evils of legislation by regulation. I may say, however, that similar words, not perhaps quite so explicit on the modification of the Act itself, appeared in the National Health Insurance Bill, and were the target of much criticism. I believe that they were derived from an earlier but less ambitious statute, but an inspection of the orders made will, I think, convince any one that the Act could literally never have operated but for this power.

A basic feature in the Act was the number of insured persons at a given moment, but it was nowhere laid down how this was to be determined, and it was, in fact, only determined after a considerable period by the aid of liberal rule-making. Among the officials it was known as the "Henry VIII. clause," presumably for its Tudor majesty of scope (and doubtless the clause would have been adequate for achieving any matrimonial changes also!). There were two interesting features of this rule. It was designed to enable the Act to come into operation, but, although an amending Act was passed some two years after, the enabling rule continued to be employed thereafter. Moreover, it made rules about its own rules, and perpetuated their existence when they would otherwise have lapsed.

No first-class measure of wide application comes or can come from Parliament in a workable form. Devolution lies in the path of evolution. We cannot thwart it by petulant suspicion—we must use it, and make it a servant, but not a master. This entails the development of sound administrative discretion. It entails, too, the evolution of a Parliamentary function which shall neither fall into the desuetude of formalism nor be the medium of political strategy.

As Hobbes said in the "Leviathan":

> How able soever be the Counsellors in any affaire, the benefit of the Counsel is greater when they give every one his advice, and the reasons of it apart, than when they do it in an Assembly by way of Orations . . . both because they have more time, to survey the consequences of action, and less subject to be carried away to contradiction through envy, emulation, or other passions arising from the difference of opinion.

III.

THE CONTRAST BETWEEN THE ADMINISTRATION OF BUSINESS AND PUBLIC AFFAIRS.

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I CAN well understand that you welcome Civil Servants to address you upon this platform, and also that you would welcome business men to address you, but that you should welcome a sort of renegade Civil Servant seems to be the maximum of charity. I have heard of a converted burglar doing quite a lot of good amongst certain classes, but I have never heard of him being turned loose amongst the burglars.

I feel that I am in a difficult position in discussing this subject, because so many of you know so much more than I do about the administration of public affairs, and I have been such a short time in business that I cannot claim to be an expert even in that. But in the course of four lectures I gave in the University upon "The Administrative Aspects of Government" recently, the importance of this "contrast" has come home to me. The usual discussion upon to-night's topic brings out two features: that the current fashion is for business men to revile and jeer at the Civil Service and Civil Service methods, while I am not sure that there is not something in the nature of a retaliatory fashion for Civil Servants to look superciliously upon business men and their methods. That does not carry us very far; that kind of thing never does, and I wonder whether we can get beyond an *apologia* on either side by seeking for an analysis of the differences in the purpose and aim or in the origin and setting of the two matters which will lead to different types of work and different types of men to do that work. If such radical differences exist, then the time for

[1] An address delivered at the School of Economics to the Society of Civil Servants, February 15th, 1923.

reviling has gone by, and if we can lead discussion out of that province we shall do some service. There is a society equally juvenile to the Institute of Public Administration, known as the Institute of Industrial Administration; it has only seen the light since the war. I have the honour of being on the councils of both of those institutes, and I am bound to say, after looking dispassionately at both, if the object of the Institute in each case is to study and classify the body of facts coming within its range and get them into that ordered whole which we designate a science, I am bound to say that neither of those institutes has advanced very far upon its task, or that one is appreciably in front of the other. I should hesitate very much, therefore, to subscribe fully to a little suggestion in the chairman's speech, that there is a science of business administration, and that public administration has to achieve it and get up to that level. I must say I have not myself observed that science.

Industrial Administration also an Infant Science.

In the Institute of Industrial Administration there is an avowed desire to study the facts relating to administration and to lift them from what I may call the "rule of thumb" sphere into an ordered body of knowledge, to ascertain what are the methods that give rise to the best results and to make a study of the subject; I do not think on either side we can claim that there is yet a science fully understood and worked out in all its details. In that sense they start more or less level, and I suggest that neither side has ground for criticising or reviling the other, because each might have its appropriate job, which is essentially different from the other. A dog doubtless looks with great contempt upon the walking and running abilities of the swan, and the swan would look with an equal contempt on the dog trying to swim. It is, roughly, such an idea we should have in the contrast between business and administration of public affairs, so I am not going to make up a defence on either side, but I am trying—not following the line taken in certain newspapers—to see what are the features, or what we might call permanent deep-rooted differences, in the very nature of the task. The usual reply of the Civil Service to criticism or explanation by anybody of the difference between business and Civil Service methods generally ends up by a reference to the Minister in the House, who has the responsibility for answering for the doings of his subordinates. It is undoubtedly an important feature, but there is something even more fundamental than that, of which answers to Parliamentary questions are a mere consequence—more trying, perhaps—and something which permeates the whole theory and task of government.

THE UNIQUE CHARACTER OF THE ADMINISTRATION OF AN ACT.

The administration of an Act of Parliament, which, after all, is what State administration comes down to, connotes several things. It is usual amongst students of constitutional methods to divide off very sharply the administration of a court of law from that of, we will say, the ordinary Government department. As a fact, when you examine it in full regard to its origin in jurisprudence, a court of law is only a specialised form of the administration of law. "Judicial administration is merely a specialised form of general administration which has acquired an air of detachment." We are all ready to laugh at the courts' delays, and chaff or chafe, if you will, at the process of the Law Courts, but in our hearts we all esteem what that process stands for, and believe it is the sole way of getting at that kind of truth and at a fair administration of the law. But, on the other hand, there is also a like principle of consistency entering into and incumbent upon the administration of its affairs by a Government department—a kind of application arising from the very root nature of the things with which it deals—that does not exist in business. No Act of Parliament to-day can, on the surface of it, legislate in precise terms for the application of its principles to every individual person and case, to whom or to which it will apply. That is quite impossible; and, with the modern pressure upon legislation, it is daily becoming even more impossible. Some of the old Acts used to try to get down to detail, so that there would be no dubiety or difficulty in administering them. But that is now beyond legislative power; and we may say to-day that Acts of Parliament legislate in "lumps" or main classes, and what a Government department has to do, generally speaking—with the exception of one or two of the trading departments that I have little in my mind to-day—what it has to do is to *pulverise* those "lumps" into their detailed application to individuals over the whole area to which they apply, so that the Act is applied in the original spirit and with the same original intention to every case as if that case had been actually dealt with by the Legislature. I have made a careful study of the authorities on jurisprudence, and I find that the later ones are beginning to discern and distinguish as a separate faculty of government what we may call "executive acts." They recognise that to put to practical use and administer an Act of Parliament the State must delegate powers, but in the past they have often regarded executive acts as being essentially the same as administrative. As a matter of fact, they are absolutely distinct. The *decision* as to what is to be done and then the *authority*, the order to do it, to carry it out, are quite different things. What we get in a well-ordered Government department, both in this country and abroad—and I am not thinking particularly of our own country—is the Civil Service as a kind of hierarchy of officials in which you start at the top with discretionary and administrative power and no executive function, and come down through grades of officials, each having a more limited but minutely defined range of discretion, until we come down to the lowest people who act or carry out and hardly have any discretion at all. Still, it is difficult in looking at State affairs to find a grade of officials so humble but what they have some discretion. I suppose the policeman on point duty is an executive officer, with his duties closely defined, but nobody who has been rushing to catch a train would say he had no discretionary power when he held up their taxi at the wrong moment.

Discretionary Power in Detailed Action.

If you will look into the functions of Government, you will see that as you get down to the people who are in contact with the public on the particular function in question, their discretion is finely limited. On the general distinction, I have given on this platform a story before—and may be permitted, perhaps, to repeat it—of an individual appointed as chairman of the Board of Customs, who, upon frequently being faced with any problem beyond his powers and knowledge, would make the following minute: "Let the proper officer take the proper action." That is much more than a joke. It is a clear illustration of the point I have been trying to make, that, derived from principles of legislation or jurisprudence, there are two functions—the discretionary and the executive. What the chairman tried to do was to hold himself up in a kind of constitutional mid-air *between* those two functions. He had to do one of two things, but really did neither. He had either to state definitely what the proper action was in that particular case, when it would automatically have been within the sphere of the executive officer whose duties included actions of that class; we should have known that such and such a thing was the line of action—then it would be for Mr. Jones, whose particular case it was, to take that up. Or he should have said: "Mr. Jones is the officer I designate to study this case and decide the nature of it." He did neither. He neither gave any inkling of what the proper action was nor defined the proper officer, and therefore he failed by falling between those two functions, giving rise to that particular dilemma. Why am I labouring this point? What we understand by administration is the settlement of detailed principles and promulgation of policy and decisions as to what ought to be done, with covering instructions for doing it, while the executive functions are the distinct functions of working out those instructions in individual cases and thus carrying out those decisions. To a very considerable extent, of course, in the average responsible official these two sides are merged. Any official who is occupying any position of importance at all has both those aspects constantly in his mind. He stands in an administrative capacity to those below him, he decides what has to be done by them and gives them instructions, but he stands in an executive capacity to those above him, and he receives instructions of a larger and more general character. There is no difference between the Civil Service and business affairs so far. The heads, the boards—those who decide the policy—call for a particular official. They say in effect, "We do not care how you do this, but we have decided that is what you have to do," and he in turn gets his assistants together and says, "This is the job we have to do, I split it up and you study and do this and you study and do that," and each of them in turn performs the progressively minor function with his subordinates until we get down to the office boy, and he, having no one to devolve a smaller fragment of discretion upon, thinks he is doing the whole job; and very often he really is!

The Problem of Uniformity or Consistency.

I must now emphasise that just as the law itself should apply equally to all subjects coming under it, so there is an obligation that the discretionary application super-added to the law by those who "*work* it" should be uniform and not erratic. The real problem is, having to discharge legal functions executively, through a large number of agents, How on earth are you to make those agents act with one mind? If one person could administer an Act, and had the time to see everybody concerned by it in the whole country, he might administer the Act quite fairly, or without anomalies, to everybody; but obviously that cannot be done, and recourse has to be had to the "pulverisation" which I mentioned, by means of which it goes down to smaller and smaller people, and the danger is that in the process the discretion may become distorted in the hands of different individuals, and they may not carry out their functions in a uniform way—in England, Scotland, and Ireland. The obligation, of course, to administer the Act uniformly is just as great in the department as it would be in the Law Courts. The Legislature can discriminate in its wisdom, or its unwisdom, between classes, but the administration cannot. Any discretion it has at all has to be exercised as a distinction between cases evenly and smoothly over all classes. Thus you have running down from the top to the bottom this obligation to uniformity or principle of consistency. I use the word "consistency" in preference to "uniformity," because people can be uniform in an illogical way. Consistency means reasoned relation between decisions for one class of case and decisions for another class, wherever it is a case of degree. If one person had to come to decisions, we might get, indeed, the scientific error of the "personal equation": one person would be too hard or too lenient to everybody with whom he dealt, but we should stand the chance that his decisions would have a logical or uniform relation between the parts—just as one examiner examining a batch of papers may mark one batch of papers higher than another examiner would. His group would, however, be more consistent with each other than if several examiners marked the papers without relation to each other. So the more persons to whom the function of discretion is delegated the more chance there is of not getting uniformity; and it is clear that if some general methods or principles have to be promulgated, then the more subordinate the ultimate user of the discretion, the more by training and character he will be unequal to the responsibility. The more minute, then, have his instructions to be, and you get at once what is described as a "wooden" or "inelastic" system. If, for the sake of economy, you allow all your final actions to be in the hands of comparatively uneducated agents, it is obvious that you get that irritating state of affairs that even if the monarch says, "I am the King of England," the reply is, "My orders are not to let you pass," because the agent can be given no power whatever to distinguish. This state of things one gets markedly on the Continent. Then, again, the wider apart the officials perform their work and the less they are able to be kept in touch with each other, the more difficult it is to keep this function exercised smoothly and identically throughout. This feature is one of the elements in the problem of centralisation *versus* decentralisation. It is one of the factors which leads to a narrow specialism which is high in the value of its immediate results, but pernicious, perhaps, in its wider influences. I should like to give an illustration to show how the principle of consistency would work out in detail in cases with which I have been familiar.

THE PROBLEM OF CONSISTENCY ILLUSTRATED.

You first of all have to be consistent in your view over the whole range of possible action. Wherever there is a question of degree, there are two extreme points, and the majority of actual cases lie at various positions between them. I use as an illustration—which is familiar to some of you here present—the penalties for infringements of the Stamp Acts. It is decided that all documents which are to be recognised as having any kind of legal validity must bear an impressed stamp according to legal schedules, *ad valorem*, or otherwise. The Legislature decides that the penalty for not stamping the document within the prescribed time of its execution should be something undefined, but not exceeding £10. It realises that it is impossible to lay down in the Act of Parliament all the conditions in regard to penalties to be imposed in every particular type of case, and therefore places discretion in some administrative department. There are at least three different lines of thought, different possibilities, different things that have to be watched. If £10 is the *maximum* penalty, one would generally imagine that it is not the commonest penalty in fact, and that there will be a gradation of penalties from "nil" for some quite simple insignificant infringement of the rule up to the full £10 penalty. Perhaps the first question that would come up in a thing like that would be the length of time the stamping of the document was overdue. Obviously, if a document is brought in several days after the due date, the offence is different in degree from a lapse of several months or years. Then there might come a difference in the amount of duty to be paid. It would be quite absurd to apply the same penalty upon a sixpenny stamp omitted as upon £600 on some important document, though here, indeed, the Act does not give much scope for the punishment fitting the crime with a maximum penalty of £10 unless some function of the duty is also added. There is also the degree of blameworthiness, quite apart from the importance of the duty—that is to say, the moral nature of the default—ranking from mere accident and negligence, then through varying forces of circumstances, up to the actual and clear intention not to get the document stamped at all unless it should be required for production in court as a last resort, a naked intention to evade. This means that every effort is made to dodge the duty, and the only likelihood of its being paid is when the document has actually to be relied on in an action. Now the combinations and permutations of these three factors may be very varied and complex. Take the first dimension of consistency: you have a continuous line from nothing up to £10 for the different degrees of offence, and the differences themselves are of three orders—amount of time, amount of money, and amount of intention. If the department put a penalty of 3s. on a document that was three days overdue, and then a penalty of £7 on a document that was four days overdue, you would say there was something lacking in "consistency," and I can imagine a question being asked about it in the House of Commons the next day: "Is the Chancellor of the Exchequer aware, etc., etc.," and his reply that, owing to the usual responsible officer being on leave, and through exceptional pressure of work, the case had been dealt with by a subordinate not so fully experienced; the necessary steps had been taken, and so on. Or perhaps he might be able to say that there were "circumstances in this case of which my honourable friend is apparently not aware which distinguish, etc., etc." The second dimension of the principle of consistency is that this line of action which we have established as the first dimension—this consistency between the extremes of "nothing" and £10—must be carried forward unbroken over a given area—the whole area to which the Act applies, and therefore the machinery of the administration must allow of that consistency being carried out in the same way over that whole area. Think of the much more invidious question which would arise in the House upon some anomaly as between what had been done in Carnarvon and London, or another injustice to Aberdeen. The third dimension is that of time. How irritating it would be if in the month of January you were to exercise the discretion of penalising a document very severely, whereas in June you were to deal lightly, or in 1922 you did it in one way and in 1923 in a different way. You can see how that would give rise to public criticism. "Is the Chancellor aware that under the late Liberal Government the penalty for not stamping such and such a document was usually £2, whereas under the present Government of landlords it is only 5*s*., and will he explain, etc." The fourth dimension of consistency, like the fourth dimension of physics, is less obvious, and not so easily grasped, but will, in the course of time, probably become more highly developed. It rests with the Legislature rather than the administration, for it consists in making the punishment fit the crime, for different *kinds* of crime. If you look at the different kinds of offence, the statutory penalties vary tremendously with regard to the seriousness of the offences in a way that would not be tolerated if they were given connected and co-ordinated consideration. But that is not a matter that comes within the subject for discussion on this occasion.

Consistency in Business.

(*a*) *Uniformity.*

Now, what about the ordinary business; is there any such obligation resting upon business administration? Well, except for businesses whose goodwill depends upon the maintenance of an exact absolute standard, there is no compulsion on a business firm to sell, say, margarine of exactly the same composition or quality or flavour in 1922 as in the year 1918; it is not sold according to the standard of an Act of Parliament. There is no actual compulsion upon a business firm to render service except along the lines of least resistance. It has not to bother about that consistency at all. I am not thinking of the analytical composition of a standard soap or other standard article, but I am thinking of the necessary attitude of the executive official and of the individual member of the public whom he serves towards each other. The business man will consider what the "traffic will bear" for a given price. He can say "We have to be very pushing in Yorkshire because there is such and such competition there, but we need not bother about Somerset and Devon, because there we are all by ourselves, protected by custom or transport." He can be quite inconsistent with them, and can be inconsistent with *classes* of people. I think that everybody could supply illustrations of cases where businesses had not an identical way of treating customers who brought back articles which they thought were not quite up to the standard they expected when they bought them. When trade is booming and orders are full, the business can be quite aggressively independent—another time it may be only too glad to put matters right, or the manager may think of the class of customer, if he has been, or promises to be, a valuable one, and can act accordingly. We had some lessons in the war upon the different attitude which a retailer can, perhaps unwittingly, adopt in different circumstances.

(*b*) *The Effect of Magnitude on the Problem.*

The next thing is the problem of magnitude. The nearer you get to the magnitude of a Government department serving the area of the whole country under one central direction, that is, the nearer you get to the type of business like a bank, insurance company, or a railway, the closer you get to Civil Service methods, and the more you get away from the methods of the merchant's office or those of the retail shopkeeper ; but when you speak of " business " it is rather desirable to define the particular kind of business you mean. In these remarks I am thinking mainly of ordinary commercial establishments. They have not anything like the problems before them—the problems that arise from magnitude, the management of very many people under one control, and all the problems with which the modern Civil Servant has to be specially familiar. This alone brings also the problem of overlapping, the existence of which is lost sight of frequently by business men. A business has not to bother whether it is treading on other people's corns ; it simply goes straight ahead, and if it finds it overlaps somebody else's trade area of manufacture, and is losing in consequence, it can draw in ; it has not to draw a hard and fast line as to where functions begin and where functions end. But a Government department obviously is different, for it is soon talked about if two departments are tackling the same job; it is open at once to acute ridicule on that score. I noticed many business men during the war in Government departments, and they nearly all of them made that mistake. They imagined that they were expected to show "superior qualities" to the Civil Servant, and their idea was to "get on with the job"; instead of having long preliminary consultations with all the different departments, they could say, "This is where we are going to start." So they went ahead, and found later that they were treading upon everybody's corns, and there was much trouble in consequence. My particular job related to excess profits duty, and it was amusing to see in departments to which control had been given over a particular product—whether wheat, flour, or coal—that the first thing the gentleman in charge did was to retire into a back room with his confederates and decide that it was desirable to "tax" that particular product or limit profits of some and subsidise others; they would then discover, after their preliminary efforts, that there was a department which thought it had a monopoly of the particular task of taxation, and it was quite amusing sometimes to see how reluctant they were to give up something that they thought was a nice set of rules—something better than the Inland Revenue Department could have for the same task.

(c) *The Risks of Overlapping and Classification.*

The ordinary business man in the conduct of his business has not to bother whether he treads on other people's corns. He can have an actual problem of overlapping within his own business, but that is different, because there is less public criticism against it. In a very large Government department, where a number of people have to perform similar functions, the problem of getting the members of the public into the right pigeon-holes and right office is often a difficult one. If you are dealing with them alphabetically, it is easy, but not so if division is by the class or character of case. The man at the door is not an expert, and when they explain the object of their call to him, they do it badly and then find themselves in the room of the wrong official, when it is discovered that it is somebody else's job. The poor member of the public is bustled off down three or four flights of stairs and along various corridors, and it strikes him as being frightful red tape and a deplorable waste of time, and he contrasts it with the simplicity of going into a shop and asking for a box of pills. But that problem is a problem that is inevitable in government, and it is not by any means as bad in this country as it is in others. Even a large commercial business is not free from problems of classification. I went into a large London stores to get an ordinary wood and brass letter rack for hanging on the wall, and I was referred from one department to another six times before I got down to the right department. I was told " I think that is kept in the jewellery department or fancy or stationery department," and then I had to walk many steps, and finally got to the ironmongery department. In another well-known stores, I went to get a particular kind of leather reviver, and I was "referred" five times before I arrived in the groceries department and found it amongst tins of tongue and soup. So that the problem of classification in the large businesses sometimes gives rise to results which remind me of that classification of Customs which put the tortoises with much livelier if less agreeable associates.

The Different Types of Administration which the Principle of Consistency Evolves.

There are four types—if I may give them quite briefly—of administration which the principle of consistency may lead to, and has led to, and is leading to, in different parts of the world. You may in practice attempt to get over this difficulty in four ways :—

First, by a code of minutest rules to cover every conceivable case in a decentralised executive without administrative discretion. Officials have to look up the existing letter of the instructions to find where your case falls, and if they can fit in every detail, they can tell you what is to happen to you.

It gives a poor type; it leads obviously to elaborate machinery and a crowd of officials; it is wooden and inelastic, and I think it is bad. Fell says :—

The fact is that mechanical institutions and methods do not respond to life, and one of the failings of civic enterprise of any sort is that it has to be legal, mechanical, and in consequence lacking in those incessant, delicate and particular adaptations which are of the essence of healthy and vigorous life. Furthermore, and in consequence, the State, when it really attempts to consider the whole public, is compelled to operate by means of averages, which in theory satisfy every one, but which in reality satisfy nobody, and in the case of many inflict an actual injury. ("*Personal Liberty*," p. 122.)

The second way is by a decentralised executive under the constant supervision of a travelling inspectorate, supplying the administrative element. That has much greater elasticity.

The third is by a highly educated decentralised staff given wider discretion under moderate control. You choose a young man of considerable mental powers and you pay him a good salary and put him out "on his own" where he has to exercise discretion just as though it were being exercised at the head office—a good commercial method, but for government a very expensive type, and a type that has not been successfully evolved at moderate cost in any country; the nearest to it is this country.

The fourth is by a high degree of centralisation, so that every subject affected has to have recourse to a central office. You can have everybody in the office ready to consult each other and always able to decide amongst themselves and keep uniformity in that way, but you thus make everybody come to them at that central office. The great point of difference between the excess profits duty in this country and in the United States has been put to me by Americans in this way. On inquiry into the cause of the *comparative* unpopularity in the United States of that duty one got down to one of two things—that nobody outside Washington had power to settle anything, and every one over that vast continent had either to indulge in interminable correspondence or to make long journeys to Washington. This threw a great burden on the centre, and it made the public extremely dissatisfied. In this country, on the other hand, there was a highly efficient, moderately paid expert in all the local centres who had very wide powers to settle things, and this system was kept in touch under the second line of procedure I discussed, to serve the principle of uniformity.

Outside Financial Control.

I have dwelt mainly on the principle of consistency. I think it is the least realised, and most people run away upon the superficial appearance of things. But I should like to deal also with two or three more absolutely differential characteristics. The second one is extraordinary financial control. From a constitutional point of view, this is a control by one authority over other State authorities, the principle of finance we know as the Treasury control. It is so splendid that the Americans yearn for it, but I imagine some of us here would find it not so excellent as they imagine! What we call Treasury control has a certain cramping influence upon Government departments which is not experienced in business. I do not think I need labour that to such an audience as this.

There is no possibility of a Government department experimenting, shall we say "going off the deep end," in anything requiring monetary expenditure, in the same way as the business can. There the branch manager may come to the head and say, "I have a notion that if I spend some money in a certain direction it will work out all right and prove a good thing." The head will reply: "I am not sure you are right, I am not quite in a position to judge, but you are there to make your place pay, and we are not going to dictate to you how to do it, but if you spend money, we expect to see a good result," and the man takes the risk of failure or success. No Government department undertakes any such change in its work; it has almost to prove the change a success before it may be tackled. You do not say to the Treasury in the ordinary way, "I think this might be an improvement, and I think there is a fifty-fifty chance (as the Americans would say) of its paying." No, the Treasury say, "Show us 95 per cent. and we will give it to you," and in the long run they have to have Parliament behind them. Can you imagine the Treasury saying to a department: "You are very slow and unenterprising in the amount of money you spend. We propose to give you 30 per cent. more; now please make the best use of it next year?" This differentiates sharply between the two tasks of administration.

THE ECONOMIC PRINCIPLE.

The third is the economic principle of the "marginal return." The business, as every student of economics knows, pushes its expenditure along a particular line as far as it is profitable to do it. It will say, "So long as I can spend £1 along that particular line and get a return of 30*s*., it will do, but if that return is only 18*s*. it is time to stop," and the margin of return along the different lines of expenditure is the unseen but effective governing principle of business transactions. But that is not the principle of Government; it can never be. Shall we take the illustration of a service which may either be in the hands of private individuals or in the hands of the municipality? Suppose it is the service of electric light and power, and you had no statutory control. Well, you are in a road where the cable has not been brought within 200 or 300 yards of you, and you would like the light, so you apply to the company and say, "I want the electric light put on to my house. What will it cost?" They say £150. You say, "That is too high," and they reply that if you get some of your neighbours also to have the light, it will come to £10 each, and then they will put it in. But you say, "You are making enormous profits over the whole area. If you give me this at a loss, it will be covered by what you are getting over the area." Their reply is, "No, we make every job pay for itself. We will extend to any area which shows a good profit." If it is in the hands of a municipality, it may still feel it necessary to make the receipts cover the expenditure, but it may think of this as a total and not a marginal result—that is, nobody suggests that every particular house is going to pay equally. They are content with the "swings and roundabouts" system, or, in effect, make the richer areas pay for those areas where there may be some poverty in comparison. The same thing applies to the Post Office: where there must be a large profit on the delivery of a particular letter in one area, and there must be a large loss in another area, it would be a hideous principle to have letters delivered on the principle of marginal return! The answer to complaints would then be: "We cannot deliver letters to you, the drive of your house is so many hundred yards long, and it costs in boot leather for the postman more than we get back in the price of the stamp." The business man, however, says: "I am going to get all the money I can in a profitable area, and why should I lose money in another area?" I am not speaking of a monopoly, and I realise that a well-administered business will endeavour to create a new demand and will not be so short-sighted as to say that until people actually come and clamour they will not supply. They will, as a matter of future profit, say they are going to create amenities and make a decent place to live in. But the fact remains that, as a broad principle, the marginal return is the principle of business.

Ministerial Responsibility.

The fourth is the principle of ministerial responsibility. It is so well known that the least act of the most humble servant of the Government can conceivably become a momentous political issue in the House of Commons the next day! Everybody in the Government department is supposed to have done every act in the sight of the supreme authority. That is a little highly coloured, perhaps, but the fact remains that with the principle of ministerial responsibility there is the necessity for the Minister to apologise for, or to justify the acts of, his department, and that fact must have, and does have, an extraordinary influence upon the *personnel* and whole character of administration. There is nothing at all analogous to that in business. It is true that an uncivil servant of the tramway company can be reported to his superior officer, but if it is not something quite glaring in the way of lack of civility, if it is some variation in the discretion the man has exercised, it is very rarely that that brings punishment upon the man. In Tawney's "Acquisitive Society," there is the comment :—

As the users of underground and suburban railways know to their cost, certain railway companies habitually sell non-existent places in third-class carriages, and if, much against his will, the unfortunate traveller enters a carriage of another class, proceed to collect from him the excess fare to which the inadequacy of their arrangements have made him liable. If the railways were nationalised the Press would ring with protests against State incompetence and the sharp practice of officials. Since they are in private hands, not a murmur is heard. The explanation is simple. The policy of a public undertaking can be modified by criticism, that of a private business cannot. The former is held to be acting improperly if it squeezes the consumer ; the latter would often be regarded as highly eccentric if it did anything else.

The Nature of Existing Criticisms.

Well, now, I am not going to pursue any more of the differential characteristics of the two classes of administration, but I would like to conclude by referring to criticisms that have been made of Civil Service administration. There were visitants in the war who floated in and floated out again and understood it all in five minutes—men who said the kind of efficiency with which you should dispense pensions was the same as that required in dispensing soap, and left that as a parable for the whole story. One who was, I know, very successful in administering pensions has made detailed criticism and suggestions for the improvement of Government administration which seem to me to overlook every one of the four points I have tried to emphasise here. Sir Stephen Demetriadi has suggested that every Government department ought to have an independent council of business men who would criticise in constant session the acts of the department ; advise the permanent secretary—if necessary, get rid of him—and that this, being made up of business men, would ensure that the Government department's efficiency was kept up to the highest point. He does not make it clear as to whether his council would be absolutely limited to advice or whether it would really have drastic powers of that character. Can you imagine the extraordinary division of responsibility that would exist, the extraordinary lack of appreciation shown of the constitutional position, if you had such a council as that? It would be a body to which the public could bring all cases of mental inefficiency. The council would call upon the permanent secretary for information, and proceed to judge him and his department, and conceivably the ministerial policy involved. I have recently tried to work out the comparatively insignificant problem of a central co-ordinating statistical department which could be effective without involving the crux of ministerial responsibility over policy, and even that is difficult.

Sir Stephen may have designed a new administrative machine, but he has not shown how it can be fitted in to the political or constitutional life of the country. If a measure upon which great political fortunes are staked begins to give dissatisfaction or comes to grief, who bears the responsibility? The Minister wrings his hands and says, "I am very sorry. This department that you have given me does not deliver the goods. You had better ask the Permanent Secretary why." The Permanent Secretary says, "I was going on all right, but I was obliged to bow to the decision of the council." The department might say, "Our Permanent Secretary who was, in our judgment, competent for this task, has been given his *congé* at the instance of the council." Is it the council who are responsible, or the Treasury who are too niggardly? The Treasury answer: "The council criticised the cost." So you may get hopeless division of political responsibility, and, when you come down to the root of it, if the council are found to be responsible, who dismisses *them*, and how much do they care?

This being the most representative criticism and constructive suggestion for the co-operation of business men in Government, I have given it some thought and must say that I believe it is an excellent suggestion, except for the fact that it has not considered the principles of consistency, Treasury control, marginal return, or ministerial responsibility.

In conclusion, just to show that the Civil servant's job is different from that of the business man, may I read the description of him by a modern novelist, W. L. George, in his " Blind Alley " ?—

> That man of oil, steel, and silk, capable of every delay and grace, suggestive of every sympathy and capable of none ; incapable of a lie, always capable of an evasion ; determined in public utility, yet not blind to private advancement, singularly addicted to justice, yet unable to suffer mercy ; not a man, but a theorem, a diagram, a syllogism.

IV

THE ECONOMIC EFFECTS OF DISARMAMENT.

IV.

THE ECONOMIC EFFECTS OF DISARMAMENT.[1]

THE extent to which the purely economic aspects of disarmament have been developed in recent writings is almost negligible. The treatment of the subject has been mainly in its political, social and moral aspects, and the economic features have only been incidentally examined. Where such features have been considered they have not been handled with that degree of detachment which is essential if their true character is to be determined. It is the purpose of the the following paragraphs to isolate the economic aspects, and, in the absence of any body of accepted economic teaching upon the subject which might be expounded, to essay an analysis of a tentative character, not, indeed, for the enlightenment of economists themselves, but rather for the assistance of those who have not addressed their minds to such problems, but are desirous of ascertaining the conclusions.

I.—ASSUMPTIONS.

Certain preliminary assumptions are essential. Throughout this consideration no reference is made to political difficulties. It is assumed that a satisfactory settlement can be found, or has been found, for such unsolved problems as :—

(*a*) The limits of defensive forces in numbers of men and in quantities of munitions.

(*b*) The annual expenditure thereon.

(*c*) The standard for modifications of such arrangements to meet changes in population, money values, etc.

(*d*) The control of those types of national expenditure

[1] Based upon a Note prepared for the British Prime Minister on the occasion of the Washington Disarmament Conference, 1921–22.

which confer special advantages upon nations desirous of making sudden aggressions.

The question to be put is: *What would be the difference in the economic prosperity of a collection of world States without armaments and with armaments* (*on the scale we see them to-day*) *respectively?*

II.—Government Expenditure Classified.

The Primary Gain of Disarmament.

When Governments have extracted a large sum in taxation from their people, the real or ultimate economic effect cannot be stated until it is known *how the money is spent.*

(*a*) To use it to repay debt has one kind of effect; (*b*) to pay interest has a somewhat different result; (*c*) to pay for collective organisation or social reform (insurance, education, labour exchanges, etc.) is different again; but (*d*) naval and military expenditure is quite in a class by itself. To see this clearly, we must visualise the national productive effort apart from the usual monetary terms in which it is half-described and half-concealed. We may conceive the results of all our activities of every kind for a year as being piled in a great "heap"[1] of goods and services, and each contributor thereto entitled to draw something from the heap according to the value and extent of work he has put into his contribution, or the services he has rendered. The contributors include, of course, those whose services consist in the loan of appliances for production. Those appliances have originated in a title to previous production where those so entitled have preferred to conserve instead of wholly consuming their rights. If all contributors put forward their claims to their shares of the "heap," or mass of production, it disappears. Some, however, do not consume all their share, and a part of the mass remains; it is "capital" saved to help future production. The State abstracts a portion from every man's title or claim (taxation),

[1] This inexact but simple illustration is amplified in "Wealth and Taxable Capacity," Chapter II.

and, in lieu of the individual, exercises this "purchasing power," but the *total* claims on the "heap" remain the same.

(*a*) If the State takes the goods it has purchased out of taxation and throws them into the sea, the heap left for the people to consume is *wholly* reduced by the amount of such taxation. But the State may merely "shift round" these tickets of title amongst the people (to fulfil its obligations on account of some wholly past relations between individuals and the State). This is taxation to pay interest on war loans or war pensions; the goods remain, but the State changes their ownership—the immediate production is undiminished.

(*b*) The State may hand over a *large* section of its title to one of these old lenders to cancel altogether such a claim on the annual production—and this is repayment of debt. The recipient may then draw out the goods and may actually consume them, but almost invariably he prefers to take his rights in the form of unconsumable permanent goods (the loan of which to his fellows will give him the same kind of claim on the heap as the State has cancelled). Again the "heap" is undiminished. *Taxation applied in repayment of debt does not diminish wealth.* A., the taxpayer, might have "saved" £1,000 by putting it into the capital market for buying machinery, but let it be assumed he has to pay it instead as taxes to the State. Then, if the State hands it to B. as a repayment of war loan (the physical embodiment of which was long since blown out of existence in war), B. puts it eventually into that same capital for machinery instead of A., so that the result for saving is the same, but in different hands. It may even happen that A. was going to consume and not save, so that by the intervention of the State and B. together, more machinery is brought into existence than would otherwise have been. In other words, *taxation for repayment of debt may result in increased total saving.* Only in the rare case where B. spends his capital (war loan) as if it were income, on its being repaid to him, is there any diminished national saving.

It is for this reason that it is idle to say that the death duties are "capital taken by the State and spent as if it were income." All taxation stops potential savings becoming capital, and everything depends upon the degree of the potentiality that has been thus thwarted by the State. The precise guise under which funds are abstracted does not alter this. Suppose that £50,000,000 are taken actually from capital as death duties, and potential new savings of £50,000,000 are allowed to become actual savings. Suppose, on the other hand, that instead of this death duties are abolished and the income tax made to yield £50,000,000 more. Then "existing capital" remains untouched, but the £50,000,000 of potential capital never comes into being. The aggregate capital is not affected by the change.

(*c*) Organised government or some kind of collective action is essential to assist all the workers to a maximum production; they would get into confusion, or be individually feeble and discouraged without it. So when a "producer" is told to stop putting *things* on the heap and become an arranger, say, a superintendent of a Labour Exchange, or a Civil servant, or policeman, he still draws his subsistence from the heap, but seems to put nothing on. But if, through his help, others are now enabled to add, in sum total, more than they could otherwise, to an amount at *least* equal to his now missing contribution, the heap is bigger than before, or certainly no less. It is then "good business" to make the change. So the presumption of all proper Civil Service and Governmental expenditure is that it "pays" for itself. The Civil servant is thus *not* parasitic, but a real, though indirect, producer. It is only a question of the *point* to which such expenditure can be carried before it ceases to yield this economic surplus, and such surplus alone justifies expenditure, unless there are political or moral grounds as well as economic reasons for it

(*d*) But let the State tell a million men to stop putting things on the "heap" and to go aside and spend life in drilling and rushing backwards and forwards in battleships. It promises that they shall still be entitled to draw from the heap for their subsistence or living. Then the heap actually shrinks by the amount of production no longer put upon it.

and all the remaining producers, when they share the heap, have to be content with a less share than before, for the million men are still taking away from it. Their original addition is now annihilated, but their subtraction continues. The measure of the economic loss to the whole people is not so much the actual goods and services withdrawn to " keep " the million, but the goods and services the latter *might*, or would, have added. Soldiers and sailors get a fair subsistence only, which, in its economic measure, is probably not equal to what they could produce in industry. The apparent annual cost of a battleship and its crew may be represented by, say, 5 per cent. on its capital *cost* (the Government rate of interest) plus the food, clothing, etc., of the men. But the same capital investment in factories, plus this crew as workers, would yield a greater amount in commodities than a cost so measured. The need for merchant defence, the moral value of security, are not here in question. These are economic services not required in the Utopian conditions under consideration.

Taxation spent on armies and navies is therefore in a class by itself for economic loss, quite different from all other Government expenditure. The economic loss is *not* the bare amount of the expenditure or production *taken*—it is often considerably more, for it is the production " unborn." *This may be termed the primary loss through armaments.* It is immediate, and is due to the withdrawal of producers from making what the world can enjoy, and setting them aside, either as soldiers and sailors, or to make the ships and munitions which do not enter into the standard of life or comfort of the producers as a whole.

It will be clear from the foregoing that the loss is not, as frequently assumed, even by well-informed writers, both the burden of taxation *and also* the lost production. The difference between the two is not easily determinable, and it does not apply to the whole of the military and naval budget. The " net output " of the men who are *making* ships and munitions, paid for out of the Budget, is unlikely to be increased upon their transfer to other trades—it is only the actual men in service whose industrial peace output is likely to exceed in value the present wage and subsistence paid out of taxation.

With recent rapidly changing values, it is not possible to determine with statistical accuracy what the excess is, but the difference cannot be large in relation to the total product of industry, and for *convenience* we may measure the primary economic loss of production by the same measure as the cost of keeping the navy and army on their present standard—*i.e.*, by the Budget expenditure. That is, for practical purposes we may adopt, as a value of the lost production, the present expense, with a *primâ facie* probability that it really understates the position.[1] We cannot lose sight of all the *indirect* waste incidental to military and naval expenses, but not included therewith—*e.g.*, the cost of collecting the additional revenue required, transport and other industrial services, legal and similar professional services arising in consequence.

III.—Dynamic Tendencies of Heavy Taxation.

The foregoing deals only with the *immediate* effect of different kinds of expenditure out of taxation. There are also *dynamic tendencies set up* which affect the size of future national " heaps."

The Secondary Gain of Disarmament.

Many taxpayers are also interest receivers. What they pay with one hand in taxes they get back with the other, more or less equivalent, as interest, but they do not work any the less hard because they get the interest. There may be a few who receive far more than they pay in taxes, and live in idleness, adding nothing at all to the national heap.

[1] Thus our Census of Production (1907) showed the value of the " net output " per man in general industry to be £102. The Naval Estimates (1908) gave the wages, clothing and victualling of 127,909 men as £9,532,839, whereas if this number of men in industry had produced the average output its value would have been about £13,000,000. There may have been other payments to those men in kind, but certainly not enough to take up the whole difference of 25 per cent.

Throughout this consideration we have regarded the unemployment problem as one of maladjustment and not as one of " too little work to go round," as the former is true and the latter fallacious on a long time and complete view of the problem (*vide* Para. XI.).

But heavy taxation falls directly on all workers and savers —it is their production *visibly* taken away. The benefits of any increase in the heap that results from the expenditure are less visible, less tangible. They *may* be getting more on the heap indirectly to share than they would otherwise, but they cannot see it or feel it so clearly. Thus, the obvious tax damps them rather more than the obscure benefit can cheer them. Therefore the *margin* of advantages of State expenditure referred to in a preceding paragraph has to be a really substantial one if it is not to have a net effect of damping economic initiative. Probably social psychology is such that collective expenditure must help the community to add at least *two* units of production actually for every *one* that it takes from the individual in taxation if the worker is to *feel* the addition to be even equivalent to the sacrifice. The extent to which pleasure at, or approval of, the results of Government expenditure avail to mitigate distaste for a taxation burden, or to throw off its depressing effect, varies with individuals and with the kind of tax. But heavy taxation diminishes the *visible* reward for labour, initiative and saving, to such an extent as to induce reluctance to go very far along any line of enterprise in overtime, risk or abstinence. It is not "worth while." The dynamic tendency of such taxation is to shrink all future national heaps. It must be noted, however, that this effect is often exaggerated. Many people are not *actually* in practice deterred from saving, or working, or taking risks, to anything like the extent they allege—they love to "blow off steam" when they are discussing taxation itself, but in face of any business opening they act much as in other circumstances. Moreover, a large proportion of enterprise is conducted through joint stock companies, where the springs of action are much less affected. But it is not always a question of the absolute or total burden at all. The worst psychological deterrents are the last increments of *particular* taxes taken beyond the breaking point: a given new burden of ten millions for the State may have a considerable effect if put on to an existing tax already high, but much less effect if differently imposed.

IV.—Cumulative Effects of High Taxation.

Whatever the destination of the taxes may be, they tend to have this effect on each *new* worker and each new business man. But the expenditure on armaments is, in proportion, the most effective as a deterrent. All the other forms of expenditure have some favourable economic reaction, more or less direct, upon the national heap, which is at least some offset to the primary blow to incentive. But the net effect on incentive (whatever it may actually be) is certainly cumulative.

(*a*) For discouragement of production by taxation is progressive or cumulative. Each additional pound of burden is harder than the preceding pound to bear, and greater in its discouraging effect. Similarly, in the relief of taxation, the first instalments or sections of substantial relief have greater effect in encouraging production than the last. If, therefore, £600,000,000 in taxation has a certain repressive effect, let us say, measured by 3,000 units or tons of thwarted production, and then one-third of the expenditure is suddenly remitted, the effect in restoring incentive is probably measured by much *more* than one-third or 1,000 units or tons. All heavy taxation (at any rate, until it has been in force for a long time) thus tends to be repressive on production, and the production that would be resuscitated by remitting the taxation for expenditure on armaments would, for a considerable period, be greater in proportion than the actual sum remitted.

(*b*) The increased burden of taxation, or "top layer," tends to come more and more out of *savings*, and so it cuts off future capital supplies and lessens future production. This is cumulative in its future effects, or like a compound *minus* interest, for there is then again less to save from in the future than there would have been.

(*c*) With others, who would not have saved in any case, it tends to cut more and more into subsistence expenditure, as it has less and less scope to be met by the curtailment of luxuries, and so it is likely to weaken physical and moral effort and stunt immediate production.

(*d*) Remission of unproductive taxation is cumulative in its effects in another way. If a reduction from 6*s*. to 4*s*. in the pound encourages *more* work and saving, the fund to be taxed in future years grows more rapidly, and the actual amount of money now raised by 4*s*. can then be raised by 3*s*. in the pound charged on the larger profit. Thus incentive is still further "released" in succeeding years.

The loss, through repression on the community, I term the *secondary loss*. It may in actual amount be greater than the primary loss, as it is due to damping down the producing stimulus of the *whole* population, and therefore, though only a small difference per head, may be larger in the mass.

V.—The Peculiar Character of Armament Expenditure.

The Third Aspect of Gain.

Expenditure on armaments is wasteful i[illegible] *way*. It is not merely that so much vegetable an[illegible]ugh (food, clothing, etc.) fails to get produced [illegible]nd ment that might have been produced if th[illegible] been withdrawn. These are natural rec[illegible] whose future abundance is not contingent o[illegible]

But the irreplaceable products of Nature a[illegible]st *advantageous-use for the human race in arm*[illegible]

Modern civilisation of a mere hundred [illegible]ge is living hurriedly, and without forethought on the [illegible] are stored-up products of many centuries. We are rapidly "skimming the cream" off our natural resources, though we are fortunately turning them into capital forms (railways, bridges, etc.) having considerable permanence. But the ships and naval and military guns (with even the peace-time use of shot and shell), together with the machinery for producing them, nevertheless represent a large consumption of iron, steel and coal. Battleships consume enormous quantities of steam coal, and in these days oil also. *Iron, coal and oil* are three products that true wisdom dictates should be used sparingly to the best possible advantage for *future* productions, as well as for the present. The amount used for naval and military purposes might as well never have existed, so far as its influence on the economic future is concerned—it is a clean deduction from Nature's provision for the human race.

Disarmament would help to arrest this waste of the irreplaceable fundamental factors of modern economic life—the rake's progress to physical bankruptcy.

There are two common rejoinders to jeremiads about our wasting a ets: (1) That new sources of power (*i.e.*, radio activity o release of atomic forces) will be found long before we into difficulties through a shortage of iron, coal and oil nd (2) that vast stores of iron, coal and oil are either or suspected to exist in undeveloped areas, China, Br The obvious answer to (1) is that it would be foolh presume upon the conquest of unknown physical til that mastery is more within sight. It behove us to use our existing resources as if they really had to last us for a long time. No one has any right to live say, 1 his income merely upon the rumour of a bachelor and n Australia.

the e answer to (2) is that if coal and iron remain the foundation of industrial power and the support of large populations, the resort to distant fields of new resources means a complete ing of the centre of gravity of existing power (and popu-), and if brought about too quickly it may reach those eas before the latter have developed a political and al environment adequate to the needs of such a change, and upon which alone the change could be made with safety and advantage to the world as a whole.

This is the *third degree of loss*—the misuse of Nature's bounty.

VI.—Human Waste.

The Fourth Gain of Disarmament.

Akin to the preceding consideration is the fact that disarmament would arrest the human waste that armaments now involve.

A large proportion of the very best physical specimens of civilised races now spend the finest and most receptive period of their lives uneconomically :—

(*a*) The most receptive period of life for attaining skill and learning productive trades is absorbed by military and naval services which, economically, are blind alleys. (To some extent this is reflected in the general production loss, Paragraph II.)

(*b*) There is a more or less enforced celibacy for many during a period when natural social conditions would be of greatest eugenic value to the economic community. Naval and military service tends, on balance, to be dysgenic. There is abundant evidence to indicate that the diseases most powerful for race deterioration find abnormal encouragement in militarist conditions. This feature is not a deprivation of advantage so much as a positive injury.

(*c*) There is a devotion of brain and energy to scientific problems relating to armaments, and this devotion does not lead, as it would in industry, to less future expenditure through greater efficiency per pound spent, or through greater durability of capital—it leads instead to more and more armaments, more expensive appliances, quicker obsolescence. Leading scientists agree that the research induced by military and naval considerations would be equally or more fully forthcoming for peace purposes.

It is clear that if human energies were turned away from these three " waste-pipes " into channels of permanent human advantage, the *cumulative* effect upon economic welfare would be very great indeed.

It is sometimes stated that the physical training, etc., involved in military and naval service is a great asset to the nation. But its benefits are confined to the small proportion who undergo it, and may be dearly purchased if the standard of life of the rest of the people is depressed in order to provide it for the few. It is doubtful economics to start with a *picked* set physically, and give them all the advantages. A part of the improved standard of life released by disarmament may well take the form of improved sanitary conditions, medical services, open spaces, opportunities for exercise. Owing to the evolution of a complex civilisation, an English-man has become four times as well off, economically, in goods and comforts as his counterpart in the British population 100 years ago,[1] but not the least of his advantages is that he has, *in addition*, shorter hours, better conditions, and opportunities for a fuller life. Despite all this improvement, the present standard is deplorably and unnecessarily low. Disarmament may well bring better conditions of this kind.

This is the fourth loss—the disregard of vital wealth.

VII.—Social Reform.

So far we have proceeded on the assumption that the whole of the benefit of relief in taxation would be immediately presented to the taxpayer, and he would exercise, in his own way, his regained purchasing power. But this need not necessarily be the case; it may be that the State can still retain part of it by increasing the present expenditure on objects which would do the taxpayer more good than even his own expenditure could. For example, we could resuscitate our own education programme, and our housing schemes could become once more effective. Each country would have to decide for itself, upon merits, how far it could use its newly released purchasing power collectively, and how far it could give it up to the individuals again, but there is obviously scope for great social amelioration.

VIII.—Economic Development no Longer Trammelled by Uneconomic Considerations.

A Present-day Example of the Benefit of Non-militarist Development.

One may get an indication of the economic advantages of the absence of armaments by reflecting on what the position of the United States and Canada would have been industrially, or economically, if a large army for each side, with a whole line of boundary forts, had had to be maintained at the national expense of each country on both the Canadian and the United States side of that boundary of thousands of miles extent.

One of the most important historical reasons for the

[1] *Vide* "Wealth and Taxable Capacity," p. 94.

rapid economic development of the American continent is that it has been able to develop its resources as a unified whole instead of being split up into a large number of separate military areas.

Anti-Economic Development of Industries.

Even national enterprises and undertakings that should be conditioned entirely by economic and commercial requirements are, under the present *régime* of international rivalries, frequently disturbed by strategic and military considerations, and therefore made economically less efficient. One may instance railways which are diverted from their true economic channels for strategic purposes, the change of railway gauge at boundaries, and so on. Such economic irrelevances as these might be relegated to the past.

IX.—An Aid to World Reconstruction.

(a) Immediate Effects on Inflation.

The cancellation of armament expenditure, especially in the countries where it is not applied to give immediate relief in the *rate* of taxation, would be adequate to cover the present deficits and to enable the national Budgets to balance.

(b) Later Effects.

The increased profit-making activities which the productive employments of the men released would soon bring about, would enable a *larger* sum to be paid to the Exchequer at the *old rate* of taxation, or the same contribution at a *lower* rate. But, in either case, Governments would be relieved from the necessity of inflation to make ends meet, and could return from vicious methods of taxation to juster ones. The balancing of Budgets is agreed on all hands to be the preliminary to the cessation of inflation, and the cessation of inflation to be absolutely essential to the stabilisation of international exchanges. The stabilisation of the exchanges, in turn, is one of the real but, at present, unattainable remedies for the present industrial and commercial dislocation.

Disarmament, therefore, should not be without influence on the immediate recovery of trade. (This note has, however, been devoted mainly to a consideration of the matter, apart from the current economic troubles, in what we might consider a more normal state of affairs.)

X.—The Effect upon the Best Development of the World by International Investments.

(*a*) *Security.*

It has been assumed that the problem of political rivalries and satisfactory policing arrangements has been solved. General disarmament and the absence of all risk of aggression ought to make investors feel more confidence in sending their money to foreign countries. But assume for the moment that investors in London, Paris, or New York—invited to put money into an oil proposition on the borders of the Argentine Republic—have a sense of insecurity because the Argentine can no longer rely on considerable army and navy resources, and that they want an extra 1 per cent. for their money as an insurance for the supposed risk. The Argentine industry will be relieved from burdensome taxation to an extent which will enable it to afford such an extra percentage, and there is no reason, therefore, why the investment should fail to be made, and the enterprise fail to materialise, on that account. But the greater part of an insurance premium, such as we are assuming this 1 per cent. to be, must, in the long run, always represent the amount actually *absorbed* by losses, that is, the premium is mainly a contribution to the pool on which claims are made, and only a small part remains as *profit* for the insurance enterprise.

Now if the claims on the pool do not mature—and we may assume that investors will, in the fullness of experience, soon realise that their fears are groundless—then the forces of competition will quickly show that the premium is too high and quite unnecessary for the purpose for which it was paid, and it will become lower and tend to disappear.

There is, therefore, nothing in the contention, from an ultimate economic standpoint, that the rate of interest upon foreign investments, due to increased insecurity, could be permanently raised. On the contrary, the existence of large rival forces adds to the insecurity. It is no real comfort to the investor that the Argentine spends some millions more than its nearest rival, or seems to have a larger army or a better navy. He knows that this margin of apparent advantage, good as far as it goes, may quickly disappear when the real test comes, and it can never be relied upon for real security. The only security is in the absence of the possibility of sudden war and the absence of inflammable or provocative military elements.

(*b*) *Political and Business Credit.*

The presence of governmental temptations to military aggrandisement and, therefore, to currency debasement in a country, is a powerful deterrent to investment by people outside its borders, because of the uncertainty it introduces into the future of that country's money values. Moreover, currency inflation leads to speculation, unknown and unstable industrial conditions, labour troubles, etc., which frighten the foreign investor.

(*c*) *High Taxation Hinders the Flow of Capital.*

We are now, in this country, still in an experimental stage in the elimination of double taxation between ourselves and the other parts of the Empire. Having regard to the greater administration difficulties, and the wider differences in fiscal *régimes* and methods, we are probably very far yet from removing double taxation outside the Empire, and we may accept the fact that it is likely to be, for some time, an inevitable feature between nations.

Taxation, as a repression to ordinary home investment, is bad enough, but a foreign investment usually means a considerable element of double taxation, for it bears income tax in the country where the interest or profit arises, and also in the country to which it is remitted, or where the investor lives. There is, therefore, frequently a double toll taken of such classes of investment.

Now, the reduction of armaments in each country means a *double dose* of relief, and, therefore, we should expect to find the present special handicap upon international investments relieved to an appreciable extent, and the flow of capital (and, therefore, trade over the world) into its most economic or advantageous channels made easier.

XI.—The Effect on Industries.

Would the economic redistribution of production after reduction of armaments is completed be a good one?

It is only possible to answer this in most general terms.

What Demand would be Reduced?

Industries producing foodstuffs of all kinds and clothing could not be depressed, for the soldiers and sailors must have no less demand when they become civilians. They are actually likely to have a greater demand.

Tobacco, drink and amusements will also be required to an equivalent extent.

Coal and iron consumption would be cut off from one part of the particular employment it now has.

What Supply would be Increased?

There would be a general absorption of labour into all kinds of industries. Food products, clothing, etc., might well be *rather* more plentiful and cheap for the masses, and the building, furniture and allied trades could be permanently enlarged. Coal, iron and steel would thus be wanted in the new directions and expansions, but it is impossible to say definitely whether, on balance, these would make up for the reduced demand referred to above; on the whole one inclines to the view that the actual *rate* of consumption of those things would be retarded—*i.e.*, that armaments entail a greater proportionate capital use of iron and coal per man employed in the Navy than disarmament would bring about per ex-Navy man absorbed in general industries. This would, perhaps, be compensated by the demands of the growth of fixed capital through greater savings (Paragraph III. (*b*)).

At any rate, there is no evidence that the expansion of the industries working under conditions of " decreasing returns " will be greater than the expansion of those under conditions of " increasing returns," and, therefore, on balance, the unit return per man and per pound of capital will be improved and not lowered. The larger output required from many of the existing industries will probably mean some appreciable lowering of overhead costs, and this, in turn, means that the objective results of human effort in production are greater than they could otherwise have been.

Unemployment.

Popular economic prejudices have, of course, to be met. But, apart from the natural sentiment against dislocation, all these prejudices are based on the " fixed quantity of labour " fallacy.

For example, one must expect to be met by the perennial argument that the occupation of men upon battleships is good for trade and employment, and that to put them off this employment is to add them to the unemployment market. This, of course, is partly the fallacy of the State's power of making particular work out of nothing and partly the fallacy that there is only a fixed quantity of work to be done ; it is indeed really the fallacy that *any* kind of employment is economically advantageous.[1]

Apart from the difficulties arising from a complete dislocation and disturbance of industry, to double a population is to double both production and demand, and the economic situation of the human race cannot be improved by permanently segregating a section in economic idleness. The problem of unemployment is not related to the *magnitude*

[1] In all countries one finds that not only the men employed and the people engaged in war material businesses very naturally urge that such expenditure (especially if spent at home and " keeping the money in the country ") is good for trade, but even writers with some pretensions as economists also champion the theory. The argument that money expended on armaments does not leave the country, but " circulates capital," occurs constantly, for example, in the French Parliamentary reports on estimates and Ministers' speeches. The report on the 1909 Budget urged that " it was to the social and economic interest of France to maintain a mighty army," without any reference to the real waste of capital and energy involved.

of the populations creating both demand and supply, but is one of rapidity of adjustment of one to the other and the mitigation of cyclical fluctuations. The machine, through that very complexity which is capable of such a magnificent yield when it is functioning smoothly, is the more liable to get out of gear, and the more difficult to get running again when it is thrown out of order.

There can be no valid fear on this score which would not be equally valid against such an increase in the population of workers as we expect to find naturally in the course of two decades. The fear pre-supposes :

(*a*) That the whole of the present normal desires of an entire population can be easily supplied by the efforts of a smaller section of that population ; and (*b*) that no new wants or desires arise ; and (*c*) that the section under (*a*) get into possession of the producing jobs and cannot be affected or ousted by the others. Such a set of conditions could not be permanently stable, and the fear is, in the long run, invalid. The only valid fear is that population should outstrip Nature, invention and improvement, and that the law of diminishing returns should set in severely along every line and lower the normal net output for the whole race. But this is a problem of *total* population and nothing to do with any given population supporting part of its numbers in enforced economic inactivity.

XII.—Dislocation of Industry during Transition.

(*a*) *Dislocation During the Change : Employment and Capital.*

It is commonly felt that there would be a most serious dislocation of trade following disarmament, and that this means in itself much economic waste. While dislocation would be inevitable, the extent of it can easily be exaggerated. Much depends upon the state of industry when the change is made. The absorption of labour in 1919 was most remarkable, but even a small demobilisation during a depression would be troublesome. As indicated above, the staple industries would not normally have a lessened demand, coal would be wanted for the new uses instead of the old, but iron would also be redirected, though possibly reduced in demand.

The real "waste" would come in connection with the *fixed capital* specially adapted for producing future armaments. Even here the ease with which factories established for other purposes were adapted for war requirements indicated that a transition might take place in some cases without difficulty. These "war material" industries have never been the smoothest running and most stable of the industries, dependent, as they have often been, on political fluctuations. The new activities taking their place may well prove a steadier economic component of society than the old.

From the point of view of loss through "dead" capital, Great Britain, with its regular business of supplying foreign navies with ships and armaments, has perhaps more to lose than any other nation, but that would not deter her from facing the dislocation and loss in the interests of humanity at large. Her feeling is indicated by the readiness to disarm which was shown by Great Britain after the Armistice—an example not followed by others.

But the absorption of new and relatively unskilled labour would be the most important feature, and it would be a matter of national obligation to make the transition free from hardship. The cost of taking care of it for the transition period would not, however, absorb the whole of the economic advantages of disarmament, even in the earliest years. That part of the national, military and naval expenditure which is incurred on food and clothing of the men would go on and be the last to disappear from the State Budget. Other expenditure may be stopped, but until men are placed they must be fed.

It is not part of our purpose here to consider either the method, or the rate, or the extent, of disarmament, nor do we touch upon the principles underlying the determination of the standard of "minimum defence" provision. But it is obvious that, in so far as the "descent" is made gradually, and in so far as there will still be normal minimum requirements, the most extreme evil of wasted capital and unemployment could be avoided. The least transferable labour, and the most completely specialised buildings and machinery, would remain in commission for their present purpose. The difficult question whether any residual minimum of munitions manufacture should be in private hands or under Government factories has some bearing upon this. Probably, the manufacture itself is more economical and efficient in private hands, but if a return has to be allowed upon idle capital kept in commission for manufacture it may cost less in interest upon Government capital paid to investors in Government loans than the long-run compensation that would have to be reckoned upon for idle capital to private investors would do.

The chief argument against private munition enterprises has been the influence they have, especially in some countries, in stimulating disturbing rumours and warlike activities in their natural interests, but this is rather a political than an economic question. It is clear, however, that it is reduced to insignificance if they can be engaged only upon a minimum programme, and if no agitation for extensions is practicable.

(*b*) *Dislocation: Currency Difficulties.*

It is, *primâ facie*, just as possible for industry to go along upon one level of prices, or stable volume of currency, as upon another twice as great. It is during the transition from one to the other that economic disharmonies are set up: on a *rise* from one level to another, wage-earners, fixed dividend receivers, lenders and creditors are at a disadvantage, while capitalists, borrowers and debtors gain; on a fall to a lower level, wage-earners have an advantage (unless the fall is so severe as to knock out the margin of profit and cause unemployment), creditors and interest receivers gain, but business men and borrowers lose ground relatively. When a new level is permanently reached, relative positions may be restored as before, except for long period contractual relations agreed at *one* level and falling to be carried out at the *other*. Thus, as prices fall, the burden of war loan repayment and interest is relatively greater upon the borrowers (the community) and the benefit greater to the loan holders. Now in countries where inflation is very great and fluctuating, the deflationary effects of disarmament will be difficult to disentangle from many others. But in stable countries, assuming no change in the volume of currency, the increased production for which it must function will tend to bring a fall in prices—*i.e.*, be equivalent to deflation. This would exaggerate the purchasing power of wages until the check to business enterprise counteracted it, but in any case it would end in the war loan capital and interest, *fixed in the amount of currency*, commanding a larger proportion of the total goods than before, unless, and until, the volume of production had increased in greater ratio than the fall in price. There the interest receiver might get more actual goods than before, but a smaller fraction of the whole.[1]

If there were any sign of the decline in prices being in excess of the increase in production—so as to make a smaller national income measured in currency—a certain amount of mild inflation would be advisable. If it were designed that, on the new permanent level of production, the workers and businesses should reap the whole advantage, and the interest-receiver be exactly where he was before (in real goods), a permanently enlarged currency might be needed. But such ultimate considerations are theoretical and secondary, and may be relegated to the *de minimis* category. In any case, producers are going to be at a disadvantage relatively to loan holders as prices fall in the course of time, and a fall brought about by increased production is less unfavourable in this respect than one due to decreased currency. It would be idle, therefore, to attempt to check any fall in price due to this *particular* increase of production consequent on disarmament.

[1] For example: £350,000,000 interest would be a 10 per cent. share of a national income of £3,500,000,000 (say, 35,000 million units of production). It would be *over* 10 per cent. of an income of £3,400,000,000 (say, 36,000 million units at lower prices), giving the interest receiver 3,700 million units instead of 3,500. But if the national income rose to £3,850,000,000 (for 45,000 million units at still lower prices), his *proportion* would be less, or only 9 per cent. The interest receiver would share the general advantage of lower prices without actually being a greater burden than before on the producer.

(*c*) *Dislocation: Foreign Exchanges.*

The effect upon foreign exchanges during the transition should be unimportant. General disarmament, except where it proceeds very unevenly or to a special extent, should leave comparative purchasing parities much where they are. But, in the long run, of course, countries which can ease inflation through the saving in expense, should steadily improve their comparative purchasing parity and, therefore, their exchanges.

XIII.—Statistical Estimates of Effect on the Standard of Life.

International statistics relating to armies and navies are extremely difficult to use for comparative purposes. The national Budgets are made up on different plans and have very different scope:

- (*a*) Currency comparisons are very troublesome—there is no stability of figures.
- (*b*) Administrative troubles have delayed the presentation of authoritative figures.
- (*c*) Federal State Budgets differ from Centralised State Budgets.
- (*d*) Some States bring gross receipts of trading undertakings (like railways, post offices) into the Budget, others bring the net.
- (*e*) Some Budgets are on a cash basis; others in what is due *for* the year.
- (*f*) Definitions of military and naval expenditure vary widely.
- (*g*) Charges incidental to the war itself are still accruing.

Nevertheless, it is possible to give broad figures which sufficiently, for the present purpose, indicate the nature of the burden that is being discussed.

According to figures used by the League of Nations Union, for the pre-war years, the United States and Great Britain and France expended some 34 to 38 per cent. of their total national Budgets in armaments. Italy, Japan, Sweden, Norway and Denmark were in the neighbourhood of 25 to 30 per cent.; Argentine, Belgium and Spain from 15 to 20 per cent. The proportions of many of these have increased on the first post-war Budgets. Taking the four Great Powers, Great Britain, United States, Japan and France, *en bloc*, there was over all about 34 per cent., as against a very similar figure before the war. Post-war compared with pre-war percentages are, however, deceptively low, because the full Budget now includes such enormous sums for debt charges, and the comparison is not really a valid one. As regards a wider range of countries, there seems good ground for the statement at the Brussels Conference that on an average "20 per cent. of the national expenditure is still being devoted to the maintenance of armaments and preparations for war." In the 1920 Budgets the figures for Greece, 61 per cent., and Japan, 48 per cent., of the total expenditure, are notable.

Of course the proportion which the Budgets bear to the total incomes of these countries now is very varied, and the total incomes are not fully known, but it is very unlikely that the Budgets are, on the whole, less than 20 per cent. of the total national incomes,[1] and they are certainly equal to 40 per cent. of the "free" income over and above a bare subsistence level for the people. It is clear, therefore, if these figures can be taken as approximately correct, that the release of the whole armament expenditure alone would be, in some cases, equal to 5, up to 8 or even 10 per cent. in others, on the national income, and a much larger percentage of the "free" income.

As indicated in Paragraph II. above, the primary effect upon production of the release of this expenditure may be even greater than the expenditure itself, while the secondary effect is also most important, and one could therefore state, without much fear of serious error, that the standard of life throughout great industrial Powers would be lifted by over 10 per cent. by the cancellation of expenditure on armaments. Such an increase would have a much greater influence upon the comforts of life, and on the economic well-being of

[1] There is some fair statistical evidence that the average of the separate percentages of Government expenditure to national incomes in eight leading countries for 1920 was 23 per cent.

the people, than the mere figure itself might convey. At the stage at which we stand, it is, for the great mass of the peoples of these nations, the difference between grinding penury and a reasonable standard of comfort.

The application of recognised economic principles to the problem leads the writer to the view that reduction of armaments would yield four distinct kinds of economic gain :

(1) New production by present non-producers.
(2) New stimulus to producers.
(3) Conservation of wasting assets.
(4) Eugenic and racial improvements.

It is, moreover, imperative for immediate reconstruction. There would also be important incidental improvements on existing conditions, and, altogether, ultimate improvements in the general standard of life might be estimated at not less than 10 per cent. all round.

XIV.—Conclusion.

Anything which minimises the risks of war, with all that economic loss which it entails for generations, would be an economic boon for which a great price might well be paid. If a reduction in armaments can (as we must well conceive likely after the complete failure of the reverse policy) be such a minimising influence, then it is worth facing a great economic cost to secure it. But, as we have seen, there is no question whatever of it involving a sacrifice or cost—it is, on the contrary, in itself a great economic boon, and imperatively worth doing for the world's good, even in the unlikely event of its ultimate effect on the prevention of war proving negligible.

V.

THE ECONOMIC ASPECT OF THE RESTRICTION OF RENTS.

V.

THE ECONOMIC ASPECT OF THE RESTRICTION OF RENTS.[1]

"Where are those martyred saints, the Five per cents.?
And where—oh! where the devil are the Rents?"

BYRON: *Don Juan.*

I AM going to deal with an aspect of the question of restriction of rents on this occasion that is not generally present to people's minds, and, so far as I know, has not really been carried through by methodical analysis by anybody. You will remember, therefore, that I am expressing no received body of economic doctrine on the matter, no consensus of economic opinion, but simply my own ideas; and if I seem to forget this and speak as if the thing were a matter of received economic analysis, you must remember that it is only my own individual and fallible opinion. When one is doing initial work, unassisted, in economic analysis, it is quite easy, with the best of intentions, to make mistakes. But I want to apply the principles of simple economic analysis to the question of restriction of rents, and to see what follows from that analysis. We need not touch any of the legal aspects whatever. Neither need we deal with any of the political questions. Time does not allow of either, and they might get in the way of what may be called the purely economic aspects.

I am assuming on your part a certain amount of initial agreement: that you accept, for instance, the quantity theory of money, which we will apply in quite crude forms; if we start introducing the refinements which alone make it really true, the simplicity of the argument will be overweighted.

To-day we are witnessing the confused operations of

[1] A lecture delivered at the College of Estate Management, December 8th, 1922.

different forces. Restriction of rents was brought about as a solution of the problem presented by these complex influences, but the solution itself is a further complication. It is impossible to understand it in its economic bearings if we try to deal with it as a single problem. It must first be pulled apart into its several " strands," and, when they are unravelled, the nature of the economic problem may be known. You would not learn, for instance, book-keeping and accountancy properly by starting from the balance sheet. Thus the present picture of reality is too complicated for us to draw simple economic lessons from it directly. We must get right behind to the basic reasons for rent restriction.

The Theoretical Considerations Classified.

To begin with, we have to learn what are the abstract conditions—for I am going to talk in the abstract for a while, and then make some applications to the existing situation—in which any suggestion for restriction of rent would arise. Having dealt with that point, I propose to discuss the economic effects that would be expected to flow from such an interference. By breaking the problem into hypothetically artificial sections, we shall reach certain artificial and unreal conclusions, and we may then compare these finally with the world of reality as we find it. I know no other way of getting at the inwardness of the matter.

A dwelling-house is a prime necessity of life as we have it in this country. It is one of the things which in adversity we forego last. Food and clothing are different. Both of these admit of a wide range of substitution, and it is possible to forego many kinds of food and clothing for a long time. Not so a place in which to rest and be sheltered. This means that the demand for houses is extraordinarily " inelastic." A fall or rise of 20 per cent. in the price of cherries may make much difference to the total amount demanded. But people will desire houses, cheaper or dearer, for they are not incidental, but vital—not optional, but essential. Attached to houses there is a very large " consumer's rent," as Professor Marshall called it—excess of the price a person would be willing to pay, rather than to go without a thing, over what he is actually called on to pay. In the case of sugar, and, with many people, in the case of tobacco, a very high price might be demanded before the consumer refused to take the article. A dwelling-house has thus a large range of "consumer's rent."

Now the amount of demand for houses is more or less fixed at any given time by natural circumstances. It is not usually altered, though, of course, in prosperous times, or when the marriage rate goes up, it becomes greater. There are three possible causes for a natural rise in the rent of a house. In the first place, you may have a variation of the conditions of supply against this more or less settled demand. The conditions of supply may be completely altered by the cost of erection. The cost of erection, by natural or induced causes, through particular things becoming rare or dear, rises, and thus there is an alteration in the conditions of supply. A house that at one time cost £1,000 to build may, at another, through "building rings" artificially putting up the price of materials, through natural exhaustion of native supplies of material, or through restrictions in labour output, cost £1,500. Suppose that interest rates never vary and 6 per cent. is required to attract capital into this industry; then the net rent must rise from £60 to £90.

In the second place, the rate of interest generally paid upon capital may alter. You may have, for the same cost of erection, several distinct rents applying, according to whether the general rate of interest is high or low. Here we may assume a given type of house to cost £1,000 at each period, but the rate of interest for the industry to alter (in sympathy with the general rate) from 4 per cent. to 6 per cent. and the net rent from £40 to £60.

In the third place, the changing factor may be a completely different value of money for *all* purposes—what we know as inflation, due to differences in currency and purchasing power. You all know that the inflation of currency, by which all prices expressed in money are greatly increased, altogether alters social contractual relationships. It alters them very much to the advantage of some and to the disadvantage of others. If, in a night, prices were suddenly doubled, so that next morning money had half its value, then all the claims to *money* that were fixed prior to the change would lose half their value. Recipients of ground rent, of debenture and mortgage interest, and those to whom the repayment of old debts was due—all these would suddenly find when they got their money that they were not able to use it to anything like the former advantage. Such people are hurt by inflation. On the other hand, the people who owned *commodities* would be in a different position, because commodities "follow-up" the price level. A man may sell a thing for a value in money twice what he gave for it, and think that he has made a profit, but there is no real profit if he can only procure half what he might have got before in commodities purchasable with the money received. In what he has to enjoy, he is in the same position as before. Such are, in many cases, the rather fictitious "profits" which arise during inflation. But there is a third class—those who are not worse off or in the same position, but in a *better* position. These are those who, for their assets, possess real *commodities*, and who, for their liabilities, have arranged to pay *money*.

The Effects of Inflation.

Suppose you get inflation in a single night, so that all values are expressed at twice the wealth of the previous day. What was formerly £1 is now worth £2. Everybody, in that case, who has a title to money will be worse off. Let us think of all classes of commodities in terms of units, and use pounds only for actual money. Suppose you have a company that has a capital consisting of a 1,000 units—that is to say, its money capital would purchase 1,000 units—and 500 of those capital units have been put up by debenture or preference shareholders and 500 by ordinary shareholders. The profits on the whole business are represented by 100 units, or 10 per cent., of which 30 go, by previous arrangement, to the debenture or preference shareholders, so that the others, the real owners, enjoy 70 units. Next day, when the currency level is altered, what is the position? The business still has 1,000 units, but instead of it being called £1,000 (or whatever the figure might be) it is £2,000. The profits, instead of being called £100, are called £200. But the preference interest is still £30 and is payable as £30, which now represents only 15 of the total of 100 units, leaving the ordinary shareholders with 85 units, whereas previously they had 70. The debenture holders and preference shareholders, therefore, find themselves impoverished to the extent of 15 units.

That is an illustration of a whole class of transference of wealth which goes on to the disadvantage of people who receive fixed payments. The same kind of thing happens in the case of ground rents and mortgage interest and similar claims to money. If the rents are doubled and the landlord has the same old charges to pay, he gets possession of some extra money. Compared with the rest of the community, he is better off than before, and somebody else is worse off than before. The holders of Consols, those to whom old debts are due, and others similarly situated, find that their wealth has been reduced, and the new rich enter into their heritage. Possibly you would say, in order to adjust matters, "I would double the old rates of interest, and that would give the recipient the required yield in commodities." That is neither a right nor a workable solution. You may take it that the rate of interest was 3 or 4 per cent. when prices were a quarter of what they are now, but that must not be taken to mean that the interest now should be 12 or 15 per cent. Interest is the reward of waiting and abstinence. The solution is not to double the rate of interest; that might be done, of course, as a matter of calculation, but it would not be the economic solution. The economic solution is for all the lenders of old wealth before the change to be deemed to have twice the property they had before, and be paid the old rate of interest, so that they receive the old rate on twice the amount originally lent. That, of course, while it may be abstract justice, is hopelessly impossible in real life.

If a man elects to take a ground rent for many, many years ahead, he elects to take the risk of the price level going down as well as up. Should it go down he would resist any suggestion that his ground rents should be lowered to meet it, and the converse must hold good. Any man who makes a long-distance contract in money makes a wager against currency changes.

Looking at prices over the centuries we find a continuous process of inflation going on. In the Middle Ages we read of a sheep being sold for *4d.*, and so forth. Then we get a burst of inflation—not perhaps, in the modern sense, but due to new supplies of the metals used as money—and prices go up with a run, and perhaps come down with a run also, but every low tide tends to be higher than the preceding low tide. Traced by means of index numbers, a continual change may be discerned. Each generation is in charge of the instruments of production and is itself putting its energies and hazard into production, and it " cheats " (if that word may be used) *all the old wealth.* I do not know whether this is due to psychology in human nature or what it is. But as the centuries have gone on, prices have had this tendency to increase, and there has always been this inclination to " rob " the past. If the ground landlord is an economist he will bargain for this tendency on a ninety-nine years' lease! He would be a bold man who would later on suggest the doubling of the ground rent simply on account of reduced purchasing power.

If it is proposed to adjust contracts because of price-changes, at what point between the long-distance contract and the short-distance contract are you going to draw a line? That is the problem. Take the man who has lent money to the nation on the National Debt. If you like to inflate enough you can cheat him out altogether. There is a story of a man in Austria who died and left his two sons 20,000 kronen each. They were the good and bad boys of the parable. The thrifty boy said, " I will look after this and put it in the bank." The other boy, the rascal, bought champagne with it, lived brightly, and drank the lot after a year or two. The thrifty boy, who had got his 20,000 kronen, when he came to draw them out, however, found that they had depreciated until they were worthless, whereas the other had at least got a fine roomful of empty champagne bottles! Commodities are clearly more stable than money.

Is House-service Commodity-service?

Now the service of a house is just as much the service of a current commodity as wheat or sugar, and its exchange value ought to be on the same plane. In general inflation, if things are left to themselves, the rental value must go up. It must have a constantly close relation to the capital employed in the building. Since by hypothesis all the costs of materials are doubled, then in the general ratio the reproduction costs will be doubled, and the rates will be doubled. The people who live in these houses will also have an income which is double its former amount; they will not be richer really, but the money expression of their wealth will be double. It will not be a hardship for them to pay an increased rent. The amount of the consumable commodity "house-service" received by them will be identical. Nor has the rent-receiver any grievance. On the contrary, he often has to pay away to the mortgage-receiver the same money *amount* as before, and he receives a higher rent, so that, like the ordinary shareholders in the case instanced above, he is left with a boon. The receiver of mortgage interest finds his income in real goods reduced, whereas the payer of the mortgage interest has kept the whole advantage of the change in his hands. It is a most natural argument that either the rent receiver should receive half his old amount of real rent (the same money amount) or the interest receiver should receive double his money interest. Here lies the difficulty: Do you propose to assimilate mortgage interest to all other classes of interest, or do you not? If you say you do not, you will require to establish some very fine distinctions. If it is to be said that the interest, as a prior charge on a house, is to be different from the interest which is a prior charge for a debenture holding, the economic position is far from clear. Of course, mortgage interest differs from the debenture interest in general in so far that notice can be given and money can be withdrawn in the case of the mortgage, but it is clear that if it is withdrawn at this stage what is received is not worth more than half of what was put in. The line has to be drawn where it will cause the least possible injustice, and the line cannot justly be drawn here. There is, again, the more remote question of other charges on the property and the ground rent. It is evident that an attempt must be made to draw the line in some other place. The mortgage interest should go on as before. It should be regarded as a long-distance speculation or contract of what I might call "pre-change" wealth, although the position leaves the point of pure gain with the house-owner, who is thus to be considerably better off than before. But you will see that it is difficult to tinker with this particular class of pre-arranged interest on the grounds of inflation.

Mortgage interest is particularly like house rent—the one thing almost goes with the other. The two are so interlinked socially that it is difficult to suggest that one course should be taken with the one and a different course with the other. Here there will be two principles at work. One is the principle that mortgage interest ought not to remain "unassimilated" to other interest, and the other is the practical principle which governs the interlinking of mortgage interest and house ownership. These two principles seem to lead to a compromise. It may be said: "We will put the house-owner in a position in which he is not *worse* off than before, but also one in which he is not better off." The position seems to be that if you want to prevent the owner from being worse off than before, while at the same time ensuring that he is not better off, his increase of rent should be restricted to, say, 50 per cent. of the general rise. If, therefore, it could be said that mortgage interest on the whole is one-half of the annual rental values, that would be a fair thing to do on a permanent inflation of 100 per cent. Rent amounted to £100 and mortgage interest to £50, the owner's net income was £50. When prices are doubled he receives 50 per cent. more, or £150; still pays away £50, and then retains £100, which will buy him the same amount of commodities as he originally had. Thus, the mortgage interest receiver suffers in real income in common with all long-period interest receivers. The owner remains where he was in real income. The tenant, however, theoretically in receipt of twice his former earnings, seems to get the advantage of having to pay away only a

50 per cent. increase in respect to rent. The house-owner, who is dealing with commodities, and not with pre-change interest, is as well off as before, but is not made, as a result of the exceptional circumstances, better off than before. The advantage remains with the tenant, who is getting twice the wages, but is paying only 50 per cent., not 100 per cent., increase of rent.

Restriction of Supplies.

Now comes the second question—the restriction of supplies. This can be found to happen without inflation at all. It may be purely the result of a dislocation of economic conditions, and it makes straight for increased rents. It may mean that the supply of houses is completely cut off, and the number available against existing and increased demands is quite limited. Tenants are prepared to give higher figures in rent rather than forego the houses. It is not only the unoccupied houses of which the rents go up, but all tenancies capable of quick termination. Therefore, we have all the economic conditions of a monopoly, with some rather special or particular ones which are natural to these commodities. Let us consider the alternative. The tenant would say: "The rent is going up against me. Shall I clear out or not?" If he does clear out he will have to bear the cost of removal and adjustment of fittings. He will be willing to pay some increased rent rather than face this expenditure. If he moves away very likely he will be faced with greater travelling expenses to and from his work. It may be that he will have to go so far out that he will be compelled to change his job. All these considerations have to be taken into account by the individual before the point of "rebellion" is reached. The possibilities of encroaching on the "consumer's rent," the hidden rent, so to speak, are very great, and the real rent may soon rise to a considerable figure. When there is restriction of rents in such circumstances the tenants can, of course, retain for themselves that advantage which the difference between what they might have to pay and the restricted rent represents. When restrictions of supplies are taken off, or disappear, building commodities will have their normal price value, and houses and rentals will begin to take on once more an economic relation to the cost of production. In the meantime there would be economic justification for refusing to allow those who are in possession of this commodity to make any special temporary or monopoly profit out of it. Other monopoly conditions are either offset by the operation of this principle of substitution by ready increase in supplies from other sources, or by such legislative limitation as the maximum fare or gas dividend. But the restriction of building supplies could tend to have no such counteraction in the conditions we have experienced.

The Rise in Interest.

Both these causes of increased rents have existed during the war, but they could have existed separately. They were complicated, however, by a third matter. A peculiar economic condition nearly always attaches to periods of inflation. Gradual inflation is generally accompanied by a rise in the rates of interest. In the case of inflation due to war conditions, Governmental policy is responsible. The Government must, at all costs, have its commodities, and what it cannot get by taxation and loans it must filch silently by inflation. It has to get the goods, and so, directly or indirectly, it enters into the market with newly created purchasing power by the issue of paper money. A Government may not like resorting to inflation, and before it does so it will borrow as largely as it can. As it borrows it competes with other uses for savings, or even has to induce new savings, and the rate of interest, therefore, rises. If Government rates of interest go up, all other rates of interest go up, as the result of a process into which we need not enter. Times of rising prices during inflation mean times of extraordinary money profits. Ordinary shareholders and the business *entrepreneur* begin to extend their operations, each imagining that the easy running of his boat is due to his own good luck or skill, and that the happy time has come to stay. They all go on along the same merry course, and in their optimistic use for new money this, again, forces up the rates. The man who has lent money on mortgage then comes along with his natural desire or claim. It is difficult to avoid a kind of tacit claim that mortgage interest and rents should share in the rise and follow market rates at a reasonable distance, and that was partly, but undoubtedly, a practical cause of increased rents during the war.

The Long-period Social Function of House Supply.

This tacit claim brings us immediately to the critical question: are we or are we not going to recognise that house ownership and mortgage loans are long-period functions of society rather than short-period functions, with long-period responsibilities and rewards not to be affected by every wind that blows? What is the actual or real nature of the economic function of building a house to last a hundred years, or of lending money for building on mortgage? It seems to be in the ordinary way, under any usual classification, a long-period function. The economic case is against allowing such a function to be disturbed by any rapid following of the fluctuations of the rates of interest. It is difficult to see any abstract reason why this particular class of pre-embodied savings should be singled out for special advantages beyond other savings taking a permanent form, and there is no clear ground for distinguishing mortgage interest from Consol interest or interest on preference shares, but a mortgage has the advantage that if one wishes to get one's money, one can always claim the same original capital value, and this cannot always be said to be the case even for a debenture.

The Equities of the Property-owner's Economic Position.

There are at least three rights of the property-owner that may be considered. The first is the right not to be penalised by inflation, but to enjoy the *same* rights in money income as others have. You may, or may not, be inclined to admit that as a right. The second is the right to enjoy at the expense of the tenant community any economic advantages that restriction of supply will bring about. That ought not to be admitted. The third is the right to "enjoy" the market rates of interest (when they are higher). There ought to be considerable reluctance in admitting that except for long period or secular changes.

RESTRICTION AND WAGES.

In the time that is left let us go back to those extra "units" that were left in the hands of the tenant when, with doubled money wages, he had only a 50 per cent. increase in money rent. It is commonly stated that the restriction of rents has been a very unfair thing, and it is put as a dilemma. We have singled out a particular form of investor, and have said that he alone shall be forcibly restricted in procuring the full purchasing power of his service. That is held to be inequitable. On the other hand, we are told that if there had not been restriction in rents we should have had all kinds of extortion going on, owing to the powerful economic position of the owner, and that must be kept down. These two things are in conflict. But what actually happens in practice if we do restrict the rent to the tenant? Is it true that it is a transference of real wealth from the house-owning class to the wage-earning class (assuming the majority of people living in rent-restricted houses to be of the wage-earning class)? I think it is not true in any large sense. People of the wage-earning class, as a whole, have had their earnings increased during the inflation period by reference mainly to the cost-of-living index figures. In the majority of cases they have been given as far as possible a pre-war standard of real wages. We are familiar with the argument under which this has been done, and have accepted the principle *faute de mieux*. It may have saved the country from serious upheaval, but, as an economic principle, it is fallacious nevertheless. It assumes that the quantity of production is the same as it was formerly, which is demonstrably not true. Suppose the total production of a community of 1,000 persons is 10,000 units, or that 10,000 units are available for distribution. The individual worker receives as his share 10 units. Then comes inflation, and it is said: "Well, now, the worker must be—by natural rights—given an amount of wage which still keeps what he receives at 10 units." That is all very well, but supposing there are only 7,000 units available, instead of 10,000 as before. Before you have multiplied that first-comer by 1,000 men, the people who come late find that there are no units left for them at all. The units do not exist. Such a system is bound to break down somewhere, and it is the weakest organisations and the weakest spots in the economic fabric which are going to suffer. There is bound to be unemployment under such a system. Unless production is equal to the full 100 per cent. of the previous production, it is fallacious as an economic proposition to suppose that we can give everybody the equivalent of what he had before in spite of inflation. But if rents had *not* been restricted, the cost-of-living index would have been much higher, for rents are regarded as the first item in the cost of living, with the consequence that the nominal money wages must have been further increased to this additional extent. Restriction of rents, therefore, has been a means of keeping wages down below what they might otherwise have been. If there had been no restriction of rent, wages would have gone up even more and the result would have fallen still more hardly upon the non-wage-earning classes. The general attempt to give each worker his 10 units has fallen heavily upon the rest of the community, though doubtless this evil, if it be one, is less than the alternative would have been. If the tenant had not kept this particular unit in one way by restriction it would have come to him in another by wage adjustment, to the depletion of the units which the rest of the community received. If there had not been restriction of rents there would have arisen a position in which costs and prices must have been still further enhanced; the Government would have had to resort to inflation still earlier, and the units in the hands of the remaining community, and of the landlords as a part of that community, would have been less.

We should have given the tenant power to pay more to the owner, but his own real purchasing power would be unchanged. The house-owner then goes into the market, where the existing units of current commodities are unaltered. He comes into competition with the Government and all other classes, and reduces their purchasing power *pro tanto*. Two groups at least by hypothesis—viz., the Government and the working-class tenants—are not susceptible of a reduction; they must both receive the old quantity, so that further inflation is bound to follow, which will reduce the shares of the other sections in the available products. A new position of equilibrium is reached in which the amount of the shortage of real goods previously concentrated upon rent-receivers is spread over the other classes, not being wage-earners.

The restriction of rents is a transference of wealth, but it is in a measure a transference of wealth to the community as a whole at the expense of the landlord classes. The idea that the wage-earner is enjoying something that has been filched from the property-owner must be considerably modified.[1]

One last aspect must be mentioned. I believe that the restriction of rents has been very useful, by psychological reactions, in compelling economies in local expenditure. Assume that a borough is spending £100,000 a year, and it raises this sum by a rate of 10*s*. in the £1 on a rateable value of £200,000. Then comes inflation, and the increased cost of the same materials would make the annual expenditure £200,000. If there had been no restriction of rents, rents would have doubled and rateable values would have gone up to correspond, so that £200,000 might still have been spent and yet the rate have remained at 10*s*. in the £1 on that

[1] Recent analysis of the effects of Restriction in Germany (by Professor Moritz Bonn) confirms the views in the text: "The income of which the large class of house-owners has been deprived did not in most cases accrue to their tenants. As rent was kept artificially low, wages were lowered *pro tanto*. This might have enabled German industry to keep down prices. These low prices redounded to a small degree to the benefit of the defrauded classes in their capacity of consumers; as far as exports were concerned, part of the income of the German house-owners was presented to the foreign consumer. . . .

"Before the war, the working man spent about 20 per cent. of his income on rent. For March, 1923, this percentage had fallen to 0·90 per cent. At that time the average hourly wage of an unskilled labourer was about 1,200 marks; if he had had to pay competitive rent, as he used to do before the war, whilst maintaining his standard of living, his wages would have varied between 1,500 and 1,800 marks. As an unskilled labourer in Germany drew about 71 per cent. of the wages of an English labourer in May, 1922, this difference was almost entirely due to the fact that he lived 'rent free.'"—*Is Unemployment Inevitable?*

increased value. But rateable values not going up in this ratio, the new money cost of the original expenditure would have meant a rate of 20*s*. in the £1, a rate sufficiently startling to make people desire actively to keep it down. It appears much more alarming to local authorities or to restive ratepayers to have a rate of 20*s*. in the £1 which restriction of rents brings about, than to have a rate of 10*s*. in the £1 on the rateable value that would follow non-restriction. That is a factor which has been helpful psychologically in the reduction of actual expenditure and work undertaken. What is quite an illusion with regard to the rise of the rate does bring into play important subjective influences which make for economy.

The economic effects of the restriction of rents from the point of view of the cutting-off of supplies, and the restriction of building operations, and thus perpetuating the evils which give rise to restriction, must be dealt with at another time.

Many are the parallels drawn with the Napoleonic Wars. But at least have we reversed the complaint of Byron in " The Age of Bronze " :

> " No—down with everything, and up with rent!
> Their good, ill, health, wealth, joy or discontent,
> Being, end, aim, religion—rent, rent, rent! "

VI.

PROFITS AND WAGES.

VI.

PROFITS AND WAGES.[1]

THE relation between profits and wages is one of the most controversial subjects of the day. The purpose of this lecture is to survey our existing statistical knowledge, to estimate the prospects of early additions to that knowledge, and to consider certain principles and definitions which have to be settled before such knowledge can assume a convenient and unified form. It is hardly possible to have too great a precision in these preliminaries if misapprehension is to be avoided. As we learnt in the " Dolly Dialogues " : " Telling the truth to people who misunderstand you is generally promoting falsehood."

I.—THE PRESENT POSITION OF STATISTICAL INQUIRY INTO NATIONAL INCOME.

It is, perhaps, in the irony of things that the greatest interest should be taken in the statistics of income or profits and wages at a time when those statistics are most difficult to analyse, or are hardly obtainable upon any reliable or general scale at all. I am frequently receiving requests for up-to-date estimates of the national income, and the division of that income amongst the different classes of the population. The present position is that no one is able to estimate the total national income with any reasonable degree of accuracy. All the essential data are, at the moment, still lacking, though it is possible that in the course of a year or two a much closer approximation will be possible than at present. We have the statistics of income down to 1919–20,[2] but the greatest slump in our history has set in since then, and we

[1] A lecture delivered at London University (London School of Economics), 27th Feb., 1923.

[2] They are now available to 1921–22, but the position stated in the text is not greatly changed.

have no precise knowledge at present as to its effect upon these figures. In the old days the income-tax statistics did not overlap the wage-earners' statistics to any great extent. The latter figures, as you well know, were computed by taking the occupational census in conjunction with the average rate of wages paid in each class of occupation. These two groups, together with estimates for the intermediate classes (those who were neither liable to income tax nor receivers of wages) made up together the estimate of the national income. To-day the occupational census figures are not available, and even if they were, would be, perhaps, none too reliable with the great changes that have been taking place since 1921. Moreover, with the change in the income-tax exemption limit and the increased amount of money wages, there has been a considerable overlapping between the statistics of wages and the income-tax statistics. Three or four years ago, when the exemption limit was £130 a year, the level of wages on an inflated currency was such that large numbers of wage-earners were above that exemption limit, even though they were not actually paying any duty by reason of the different allowances. The income-tax statistics then included a very large number of the wage-earners indeed, and, perhaps, one of the readiest ways to estimate the national income was to take the section, possibly a minority, not liable to income tax, estimate their average earnings, and add this estimate to the *actual* income-tax statistics. For 1919–20, instead of the pre-war 1,200,000 people above the £160 exemption limit, there were 4,310,000 above, and the total number above £130 was 7,800,000. The new exemption limit is £150 for wages or £135 for investment income, and for 1921–22 the total number coming over this limit was 5,000,000.[1] Another and somewhat risky method is to take a section of the income-tax payers for whom we had statistics comparable for the period before the war and at the present time, to assume that the distribution has remained constant throughout all the classes of society, and, by a simple proposition, to arrive at a new total for the

[1] For 1922–23 the estimate is 4·75 millions, of which 2·5 millions are entirely relieved from tax by the operation of abatements and allowances.

whole number—*i.e.*, to take the "top" million of the population by magnitude of income for both periods, and to find, using as a basis the recognised estimate of the total income before the war, the total income now on this proportion or rate of change. The whole matter is somewhat complicated also by unsettled, or rather unrecognised, principles for dealing with the high sums of income tax which are changed over annually from the tax-payer to the receivers of War Loan interest.

II.—The Division of the Total Income. Methods of Inquiry.

One of the chief points of interest to-day amongst all classes is the division of income between the wage-earner, or the wage-earner as a salaried man, and the claimants for profit, interest, rent, etc. It was the subject of Dr. Bowley's "Division of the Product of Industry" before the war, which, in its way, is a classic. Then the settlement of the last coal dispute took place upon the lines of a recognised distribution of the total funds available for profits and wages in a fixed proportion. I spent much time and labour in investigating what that proportion had been in the last twenty-five years, and the final settlement was based upon this finding.

In America, too, very much interest is taken in the whole question. Of course, even in dealing with the theoretical question—*i.e.*, the theory relating to the right of labour to the "whole produce" of industry—we must eventually come to statistics if we want to find out what remains to be done, or what scope there is for any change. *Now, there are three main ways of getting at the facts of these matters.* First, what may be called the "total-income method"; secondly, what may be called the "aggregate-industry" method; and the third, the "sample-business" method.

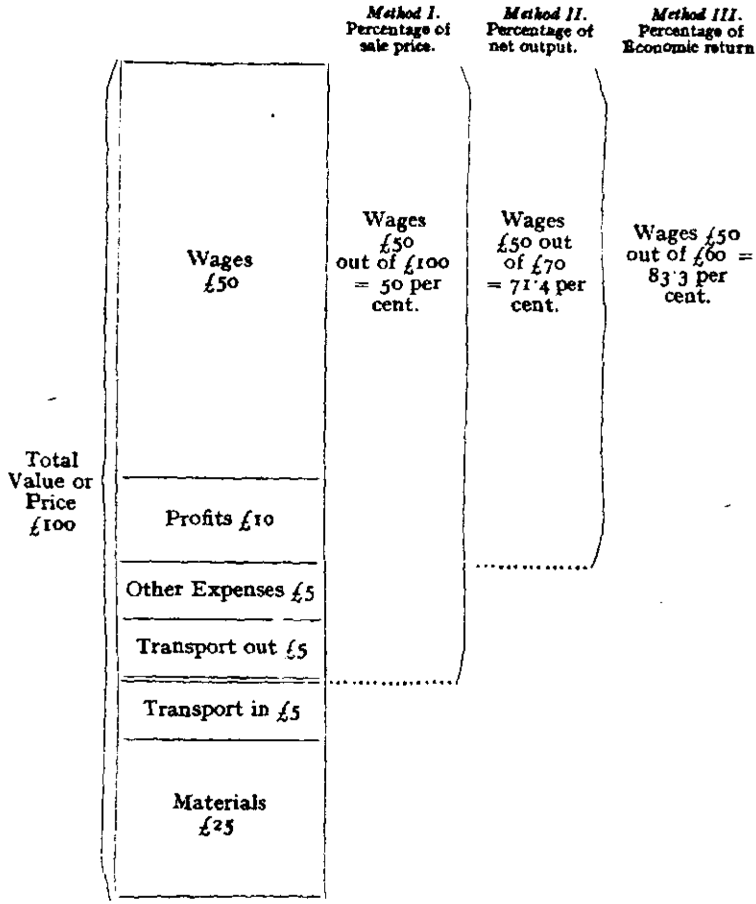
Under the *total-income method* a division is made in the total income distribution at a certain level of income, with the understanding or hypothesis that everything above that point is treated as going to the "income" receiver, and everything below that point is a return for "work." This, though common in earlier discussions, is never a very satisfactory method, nor is the meaning or lesson to be derived from it altogether clear ; moreover, it is necessary to exclude income from abroad if the comparison is to have any value as an indication of the shares of rival participants in production. It is also peculiarly difficult to know where to place and how to classify the smaller incomes derived from a mixture of personal labour and capital, as in the large class of retail shopkeepers. But the total wage bill and the total assessed income for an up-to-date period, unaffected by 1919 to 1922 changes of a large order, are not available to-day, and this method does not give us very much scope for some time to come.

The *second* method, that of the *total produce of industry*, was well elaborated by Dr. Bowley, but if you have followed his study you will notice there are two crucial points, and, failing new information on these, the whole work is in vain. The first point is a census of total production, which, as you know, comes only rarely, and the second is, the total of the *profit* of those businesses only which are contained within the area to which the census applies, and for the same period of time. By a fortunate chance, Dr. Bowley was able to use certain statistics of these profits which I had provided for the particular year he had in question. Such statistics are not often available, and it may well be that they will not be published by the Inland Revenue, even if they are actually ascertained by that department for some future years. For there are many good reasons against such an annual publication. It is clear, therefore, that this method will not often be available. It is rather like an astronomical conjunction or a transit of Venus, utilised for establishing quite distinct questions. Even when the figures are available, it is also necessary to have the total wage bill, and for that an occupational census is required. It is, therefore, only a fortunate collocation of these three things that enables us to pursue this particular method. It may be that here and there, as in the coal industry and in the railway industry, more extensive *separate* figures are available than we get for industry in general. For these reasons I was able to do much more in the case of the coal industry than would be possible with any other in finding out the ratio of profits to wages.

In America much useful work has been done lately in the way of setting out broad statistics upon the "industry" method. There is something in the nature of a limited census of production continually available to the American investigator, though writers vary in their views as to its value, but even then he has no reliable statistics of profits separately determined. However, it is surprising how close we can get to a division of a known total if one or two of the leading particulars are fairly well determined. It then becomes possible to divide up the *remainder* and to get a residual figure for profits without any disabling degree of inaccuracy being inevitable. It is the *limit* of the total to be divided which constantly prevents any of the particular percentages from becoming absurd.

III.—Definition of Division.

There is a very great interest being taken in this subject—quite natural at a time when nominal values have been changing rapidly. There is also a good deal of confusion of description, and it is necessary that we should look at the different ways in which it is dealt with and grasp the difference between them. Let this diagram represent some product of which the total price to be paid is £100. One way in which division is commonly expressed is that such and such a percentage—say 70 per cent.—of this consists of wages. Now, while this may have a limited use as a figure fluctuating with different years for the *same* industries, it is absolutely useless for any comparison with other industries, as will be seen on a moment's reflection. Consider the case where the raw material brought into the industry is worth £80, and the final product is worth £100. It may well be that wages are half of the difference, but they would *still be only* 10 *per cent. of the total.* This would be a "finishing industry" working upon an expensive "basis" of goods. On the other hand, if the raw material costs only £10, there is £90 out of which wages may possibly be taking £60 or £70, which represents a very large percentage of sale price. This, of course, is the



case with the coal industry. Suppose that in the industry we are considering, the raw material costs £30, then the value "added" is £70, to make the price £100, and this £70 is what the census of production describes as the "net output." The £30 includes inward transport. Out of this £70 comes wages and profits, interest, rent, advertising, rates, selling expenses of every description. Of course, you can proceed to define or measure wages or profits as a percentage of this amount. Now this is a much more satisfactory unit for comparing one business with another, and the comparative percentages have much more closely related meanings than they had on the first method. It will be seen clearly that if we are taking the total sale price as a £100 we cannot really say how much of it consists of wages, unless we are prepared to analyse the item of "raw material," and find out how much wages were paid in producing that in the industry *from which* it came; and if it came from abroad, then we can get no further. Again, in transport expenses we should have to determine how much was paid in wages, and in advertising and in selling expenses, and in *all* the expenses, we should have to find out by referring to the industry which supplied the particular services how much consisted of wages and salaries. That kind of ultimate analysis can really only be reached by taking the total income of the country, and tracing it down to its different sources of work or property or interest by classes of recipients instead of by industries. Now, the third principle of division, which I will call the *economic-return principle*, has a still narrower basis. It subtracts all the expenses to which I have referred, and leaves the net fund, out of which has to come the reward of the factors of production in the industry itself—viz., the workers in that industry, the owners of the capital, or, in rough language, the division into wages and profits. It is on the whole, the most satisfactory method, but it comes to grief in bad times when the item of profit is a *minus* quantity for any particular industry. It will readily be seen that these three methods or principles have very different bearings, and yet they are constantly confused or treated as identical in public discussion.

Therefore when discussing the question as to "how the produce of industry is divided up" amongst the different factors of production, we must be very careful that we define exactly what is meant, so that people will understand also what we intend. Do we refer to the fact that if £100 is paid for produce, £70, or such and such a percentage of it, goes in wages, and some other percentage in profit? Or do we refer rather to the partition of the value which the industry has *conferred* upon the goods with which it deals—*i.e.*, £70 out of the £100 of sale price—£30 having gone in raw material to some other industry? Or do we refer to a third kind of measure—that part of the added value which is available for wages and profits after meeting other expenses, including depreciation, advertising, rent, rates, etc.? For, if desired, we can cut out these expenses, and ask how the whole sum that is paid as wages and as profits together, but including nothing else, is divided between wage-earners and the interest-taker and the profit-receiver together? This kind of distinction is necessary when we consider the statement made by Mr. and Mrs. Sidney Webb that the manual working class obtained for their need only one-third of the produce of each year's work, and Sir Hugh Bell's opinion that 75 per cent. of the total *sale value* of commodities produced went to pay the person engaged in producing them. These two assertions are not quite the same, but if one can analyse back and back into the genesis of raw material, and also into the services rendered in advertising and so forth, one might get down to something like the total labour cost included in the total sale price.

A Summary of our Present Information.

(a) *Great Britain.*

Dr. Bowley has worked up the wages statistics and profits for the same year and for the same area of industry, and found that before the war wages took about 58 per cent., salaries under £160, 4 per cent.; salaries over £160, 6 per cent.—or total salaries 10 per cent.—making the total for wages and salaries 68 per cent.; and rents, royalties, interest and profits took 32 per cent. The 75 per cent. given by Sir Hugh Bell might be reached if, from the profits of £188,000,000 we took £40,000,000 as payment to master employers for their share in production—that is to say, the kind of amount they would have got if they had been managers in private companies. The 32 per cent. which went to rents, royalties, interest and profits was reduced to 23 per cent. if royalties were taken out, and if 4 per cent. was also allowed for payment of interest on capital invested. I am not going into a discussion as to what can be done with these figures. I agree with Dr. Bowley when he said:

The analysis shows that the problem of securing wages which many optimistically believe to be immediately and permanently possible, is, to a great extent, independent of the question of national or individual ownership, unless it is seriously thought that production would increase very much if the State was a sole employer.

Now, since the war, and during the war, we have had no adequate figures of the profits of industry, and we are not yet in a position to state even the total net income of the country, much less to divide it up in this way. All we can do is to go upon general assumptions.

My own view is that profits have lost some ground—perhaps not a great deal—on a recent average of years since the census of production result of 1907.

(*b*) *America.*

Professor Friday has made a series of investigations of his own upon this subject. He has found a distribution of the net product of mining, manufacturing, railroad and public utility corporations. Before the war—that is, the year 1913—wages took about 64 per cent., taxes just under 4 per cent., interest just under 9 per cent., dividends 18½ per cent., with a surplus of just under 5 per cent.—*i.e.* dividends and surplus together were 23·4 per cent., dividends, surplus and interest, 32·3 per cent. It will be seen that these bear a fairly close resemblance to British figures. Wages and salaries are rather lower, and the "profit" rather higher.

Professor Friday gives for 1919—*i.e.*, the year following the war—70·2 per cent. for wages and 9 per cent. for taxes, with nearly 21 per cent. for profits, dividends and interest.

Obviously, then, wages had gained ground, and the other factors had lost ground. His table shows, however, that up to 1917 wages lost ground; they were as low as 54·3 per cent. and the gain took place almost entirely in 1918. Of course, owing to the increase in output, and also to the immense inflation in prices, the actual amount of money wages had gone up very greatly, but profits had gone up, too, and I am now merely dealing with percentages of the whole.

Professor Bowley has drawn attention to the fact that the proportion going to wages in 1913—viz., 66½ per cent. if taxes are included—is almost the same as his computation of 68 per cent. for this country in 1907, and he adds: "It may very well be the case that the proportion has changed here in the same way as in the United States."

Since Professor Friday's work, however, a very exhaustive investigation has been made by the new National Bureau of Economic Research. The share which hired labour of all kinds—*i.e.*, wages, salaries, pensions, etc.—received out of the net-value product of various industries has been computed. The figures do not show the share of labour in industry as a whole, or in the national income, nor the total incomes of the employees, many of whom have other sources of income besides their wages or salaries. The tables include agriculture, in which the amount is exceedingly low, having regard to the total value added, and also Government employment, in which, of course, it is very high, running from over 93 per cent. Therefore, the total for industries together, including these, does not tell us very much. In minerals in 1909 it was 71 per cent., and rose to 73·4 per cent. in 1913, fell again, but rose to 70·6 per cent. in 1918. The machinery-using factories started at 72·2 per cent., rose in 1914 to 77·8 per cent., fell in 1917 to 71 per cent., rose again in 1918 to 78 per cent. A more interesting division gives the combined net-value product of mines, factories, water transportation between earnings of employees and the returns for the management in the use of property. Management and property includes rentals, royalties, interest, and dividends. The table for earnings is as follows:

1909	68·7	1914	73·8
1910	68·8	1915	71·5
1911	72·3	1916	66·7
1912	71·6	1917	68·9
1913	72·0	1918	77·3

The industries covered by this table produced one-third of the national income, but the figures exclude those concerns which are failing to succeed or going into bankruptcy, where the losses would fall on the management mainly, and would make an appreciable deduction from the incomes received by active business men.

The Significance of these Results.

I have referred to the difficulties that arise in talking about the amount of labour paid for out of the "total cost" of an article. Now that we are dealing with the third or narrow basis—viz., the share of the total fund of economic return that goes to labour as compared with profit and interest—it would seem that we have something of real, or objective, value. But what, after all, does it mean to say that in this industry only 60 per cent. of this fund goes in wages, whereas in the other industry 80 per cent. goes in wages? Does it mean that the first is a highly profitable industry, or that the owners of it are profiteers or monopolists? By no means. There is an important missing factor—viz., *the total amount of capital involved*. Supposing the amount of fixed capital in the first industry to be very large; obviously, if it is to have any reward at all, a larger proportion of the fund must go to the owners of that capital than in the case of the second industry, where the invested capital is so much less. It is, therefore, impossible to draw any valid absolute deduction at this stage, unless we really know something about the total capital invested and the risk to which it is subjected. It is difficult to see how any deduction can be drawn as to the "fairness" or "unfairness" or as to the under- or over-payment of any particular factor until this is known. Moreover, the conception of capital in this connection remains to be cleared up. Much may be said for treating it as the money cost of the fixed assets, but, on the other hand, the capital cost to present owners of shares (including values on which death duties have been paid) is worthy of consideration.

It will have been noticed that during the war the fluctuation in the proportions to each factor were rather violent—a result which would naturally follow from what we know of the effects of currency changes. Prices rose rapidly in 1916 and 1917, and during this period wages lagged behind, and did not really get into their proper proportion until 1918, when the special and peculiar demands for labour sent wages far beyond their usual proportion.

A further examination of the figures divides them between the salaries of officials and the vast army of manual and clerical workers. In Dr. King's view, the results confirm and make more precise two generally accepted opinions: first, that the salaries of officials do not bulk largely in the total pay-roll; and secondly, that salaries are distinctly more "stable" than wages. The indications are that in the highly organised enterprises salaries account for not much more than 7 or 8 per cent. of the pay roll, and not more than 5 or 6 per cent. of the net-value product. In prosperous times they increase less rapidly than wages, but fall little, if at all, in hard times. There was a net increase from 1909 to 1918 of 145 per cent. in salaries of officials as against 172 per cent. in the wages of manual and clerical employees.

Some interesting results appear when the wages received from the large group of industries to which I have referred are reduced to a common purchasing power on the basis of 1913. With the level of 1913 as a basis, there was a drop in all the industries taken together for 1914 and 1915, a good rise in 1916, and then a fall back in 1918.

The Non-wage Resources of Wage-earners.

What do wage-earners and salary-earners receive, other than their wages and salaries, out of the net product of industry? In other words, what is the "other income" of such people? Dr. King gives an income of \$32,500,000,000 for all classes in the form of wages, and an addition of nearly \$3,000,000,000 of "other income," bringing the total income of employees up to 58·7 per cent. of the total national income. The total income of non-employees is, of course, 41·3 per cent. In my view, the estimate is based on exceedingly difficult statistical work, and only a limited amount of credence can be given to it. It does show, to some extent, the order of magnitude of the sums involved. Dr. King said that employees probably received in 1918 a sum representing, approximately, one-twentieth of the national income. His own summary of the whole matter reads as follows:

The share of the *net value product* of different industries which is paid to employees as compensation for their services (not by any means equivalent to the "share of labour" in industry) varies from about one-eighth of the total in agriculture to about three-quarters of the total in mining, manufacturing, water transportation and Government work.

This share in most industries declined with the sudden rise of prices in 1914–16 and rose again with the advance of wages and salaries in 1917–18. The average for all industries was a trifle higher in 1918 than in 1909, but not so high as it had been in 1913.

In the highly organised industries conducted on a large scale, the pay of employees, including the salaries of officials, absorbs in most years some 69·72 of the net-value product. The remaining 31·28 per cent. is the share of "management and capital." Even in these highly organised industries, part of the work of management is paid for under the form of profits, and in some cases, the subordinate officials and wage-earners also share in the profits.

From 1909 to 1918, the extreme fluctuations in the share of management and profits varied from 33 per cent. of the net-value product in 1916 to 23 per cent. in 1918.

Of the total payments to employees in the highly organised industries, about 92 per cent. goes to the manual workers and clerical workers, while 8 per cent. goes to officials.

In 1918, the year for which the best data are available, about 86 per cent. of persons gainfully employed had incomes of less than $2,000 per annum, and about 14 per cent. had incomes exceeding that sum.

Dr. King, in writing in 1915 with narrow data on the "Wealth and Income of the People of the United States," made some rough estimates of the estimated percentages of the total national income received respectively by labour, capital, land, and the *entrepreneur*. (*Op. cit.* p. 160.)

For the year 1890 wages and salaries reached 53·5 per cent. of the total product; interest, 14·4 per cent.; rent, 7·6 per cent.; profits, 24·6 per cent. In 1910 the wages and salaries were about 47 per cent. It will be noticed that this does not refer to the product of industry as such, but the total national income. He came to the conclusion that up to the year 1910 the total share going to labour had been falling off, despite the efforts of labour unions and combinations. Before we can get his figures into relation to the others that I have been quoting, we have, of course, to cut out Government employment and the professional classes, while, of course, incomes on investments abroad would also swell the national income and lower this particular percentage for labour. One cannot place very much stress upon these figures, therefore, in answering the main questions that are agitating industry to-day. They serve to show that as late as 1915 in the United States very little data existed on a wide scale for dealing with this matter.

Some Necessary Cautions in Interpretation.

I have referred to the necessity for ascertaining a kind of minimum reward for the capital involved in comparing two industries or two periods. This is not the only caution. Assume the figure of 60 is shown as paid to labour. It is a figure which really conveys no final impression, for it might well be that a very large number of wage-earners receive this sum and have a small wage per head. Another industry, in which the total taken by labour is only 50 per cent., and which we might at first, therefore, judge to be one in which labour was badly treated, might be one in which comparatively few workers were very highly paid. The deductions, therefore, to be drawn from these figures must be very carefully circumscribed. They do not lend themselves to any immediate inferences of equity or inequity; as absolute figures, they tell us very little indeed. But if we can get a succession of years for a time comparison, it is much more important, because it may develop a view of a national or natural dynamic movement. Particularly ought we to be able to see the change in proportions in times of rising and falling prices, though whether these proportions really indicate "justice" or not it is impossible to say without special *ad hoc* considerations. They may indicate, of course, the necessity for some change, and for a more rapid deduction from the funds of the one to be passed to the other section, but then we probably knew this as an instinctive feeling before we saw the statistics. The figures do, indeed, show us what scope is left for either factor of production to encroach upon the other, and those who believe in the right to the whole produce of labour may see how much more there is for them to get hold of, ***assuming that they can have it all*** without destroying the fund. There are those, of course, who would make labour employ the capitalist, give him his minimum rate of interest, and then divide all that was left. It is impossible to determine statistically what this margin would be.

Again, what is more frequently overlooked is that the 100 per cent. which has to be divided between the two sections is not an absolute figure. So many regard this as a settled thing to be divided, and think that all there is to talk about is a changeable division, a larger or smaller proportion to go to a particular factor. But if either factor gains very much in excess of the other, it has a very important influence upon the size of the total 100 per cent. You may get a "large" 100 per cent. or a "small" 100 per cent. If the reward to labour is so small as to give considerable cause for discontent and slackening of effort then we get a different economic combination of the factors of production, and, however skilled the capitalist, or however much capital is forthcoming, it will yield a less total product for division than we ought to have or might have. The capitalist will have defeated his own object, because it is better for him to have 30 per cent. of a large product than 50 per cent. of a very much smaller one. In the same way, if the demands by labour encroach so much upon the total produce that there may be no sufficient reward to attract capital, men will neither save nor deny themselves. Neither will men fit themselves for positions of greater responsibility nor take the worry and risk of filling them, unless the rewards to be obtained for that risk are sufficiently good. Then industry will starve itself of its forward or progressive programmes, it will not press forward, and the total production will be less than it might otherwise have been. It is far better that labour should have 60 per cent. of a very large product brought about by willing co-operation of the other agents of production, than have 70 per cent. of a product which is small, owing to the fact that the other agents of production are shy and unprogressive. What, therefore, looks like a high percentage of reward may really be only a high percentage of a small product, and it might be far better for that particular factor if it gave more to the other factor and encouraged it to co-operate in production.

Statistics are a useful agent for showing percentages, but in their absolute result they give us no help at all, unless, indeed, we can show that somebody is receiving something for nothing, and can be cut out of the whole production scheme without destroying the product. This is not the case, however, with the average percentage on capital to-day. Obviously, more and more, as machinery is brought to human aid, the smaller might be the statistical percentage going to the wage-earner, as such, out of the total reward offered to all the factors of production, but that does not mean that his real absolute reward is smaller, if all the factors of production together are themselves much more highly productive.

Example of a Single Industry: Coal-Mining.

I have made a careful study of the available material for coal-mining, and have reached some fairly exact conclusions as to the ratio between profits and wages, and between wages and output value:

	Wages per cent. to Value.	Limits.	Per cent. Profit to Wages.
Five years, 1894–98	73·5	(68–76)	10·02
„ 1899–1903	62	(60–65)	23·82
„ 1904–08	61·3	(60–65)	18·53
„ 1909–13	62·5	(59–65)	16·87
Average of separate averages	64·8	—	17·31

In 1909–13, wages and profits together made up 73·3 per cent. of total output values, and over the whole period 75·9 per cent. If we include royalties with profits we account for 78·1 per cent. in the five years 1909–13 and 81·2 over the whole period. The balance of 21·9 per cent. (or 18·8 per cent. over all) of the total output value is made up of materials and administration, the materials being, approximately, 15 per cent. and administration 7 per cent. The latter includes, besides salaries of managers and clerks, the legal expenses, rates and wayleaves. I do not put salaries higher than 4 per cent. and I get, therefore, approximately:

	Wages and Salaries.		Profits and Royalties.		Total.
Five years	65 to 66 per cent. of output value.	...	15·6	=	80·6 to 81·6 per cent. of output value.
All	67·5 to 68·5 per cent.	...	17·2	=	84·7 to 85·7 per cent. of output value.

If, however, we now revert to the strictest "net-output" idea, that is, if we cut out raw material, costs and expenses, and divide 100 up between the two classes, we get:

	Wages and Salaries.		Profits and Royalties.
Five years	80·6	...	19·4
All	79·7	...	20·3

As regards the period after 1913, my computations showed that the ratio of profits (excluding royalties) to wages for seven years, 1914 to 1920, was probably in the neighbourhood of 17½ per cent. It is surprising how this ratio, which formed the basis of the recent settlement, has maintained itself over a long period, if a number of years are taken together.

"Sample Inquiries" in the Absence of Aggregate Data.

If the *total-income* method is not at present available and if the *total-industry* method is, like a total eclipse, not often visible from Greenwich, we are thrown back on the *sample method*. How many of us have access to company accounts in sufficient detail upon a large scale to give us samples of any value? You see, it cannot be done from the balance sheet, which is the usual document produced, nor from the profit and loss account. It requires a much closer investigation of the accounts than is available to ordinary members of the public. It is only professional accountants, acting collectively, who could perform the operation on the scale that is necessary, and, at the moment, they do not seem sufficiently enthusiastic in the interests of society or economics!

I now give a sample of a considerable group of businesses, the accounts of which I have been able, by the kindness of friends, to examine in detail. I do not claim that these are a fair type of all industry—indeed, they are not. But they may serve to show the movements in recent years. As wages only form some 12 to 15 per cent. of the sales over the whole, the industries may be regarded as finishing ones —*i.e.*, the purchases and materials are costly, and the industries covered by this sample add only the final stages to advanced products.

Taking, first, as 100 the whole fund available for profits, wages and salaries, I get:

	1918.	1919.	1920.	1921.
Wages	60·8	56·2	59·1	66·8
Salaries	7·4	19	20·6	35·5
Together	68·2	75·2	79·7	102·3
Profits	31·8	24·8	20·3	*Loss.*
Less E.P.D.	10·0			2·3
	21·8			

We see from this, that, passing from the exceptional war year, 1918, wages fell away in the price boom of 1919, and gained ground after the break in price level, leading to a clean cut in 1921.

In view of difficulty about the 1921 profits, let us look at the percentage borne by wages and salaries to the *gross difference* between sales and purchases (this gross difference having to provide for transport, repairs, renewals, rents, rates and taxes, and all general expenses as well as for profit):

	1918.	1919.	1920.	1921.
Wages	38	30·1	31·2	30·7
Wages and salaries together	41·7	40·7	42·1	47·0

The constancy of the proportion of the funds paid in wages is rather remarkable, and it was rather the comparative irreducibility of the transport and general expenses, etc., that cut out all profits. This group is merely given for what it is worth, and I do not pretend that it is typical of the country as a whole. But it is certainly comparable *inter se*.

FUTURE DIFFICULTIES IN PRINCIPLE.

A few words, in conclusion, upon an important feature which will face us when we compute the total of the national wealth at any early date.

I have laid stress upon the fact that unless our ideas about national income are to give a fallacious comparison with the old statistics, we must make some adjustment in respect of the huge payment for interest on the national debt. In effect those of us who pay income tax devoted to the payment of debt are paying interest on that debt direct. If we *really* paid interest direct it would be a deduction from our income for income-tax purposes, but because we pay it intermediately by way of taxes our incomes are still assessed as gross, and the people who receive the interest are also assessed, and included in the total. Therefore the higher the debt—*i.e.*, the more the amount of interest—the higher is the amount of the national income based on the old principle.

I have suggested [1] that if we add the amount of the interest received by the debt-holders to the total national income from other services, we ought to deduct a corresponding amount from the income of the payers, in order to get rid of this anomaly that the greater the debt the greater our statistical wealth. This precaution is, of course, necessary mainly when we are making comparisons with pre-war years. There is not so much need for it if we are comparing years after the war when this state of things exists for all years under consideration. But my suggestion has been subjected to criticism in the United States, and I have been accused of overlooking the fact that a borrower, by obtaining goods when he wishes them, may thereby gain an additional service equalling in value the interest that he pays. It is said to be reasonable to include the value of this additional *service* in the total of the national income. Dr. King

[1] "Wealth and Taxable Capacity."

classifies the victory over the Germans, or the cost of it, along with the payment for groceries and theatre tickets, as a consumption expenditure. He not only does that, but he suggests that the service *for which we pay interest* is a real service to be included in the national income when the interest payment is made. If, as a people, we borrow for purposes of consumption to-day, the interest which our children, under taxation, must pay for our loan to the children of present lenders really increases the national income. The greater our extravagance in this generation, and the deeper in debt we go because of it, the larger the money income of the next generation will be. It will be seen that my direct deduction of the interest from the income of each person who pays his tax will not meet such a criticism. The criticism really amounts to this: Suppose your income is £1,000 and the interest that you pay by the income tax is £50. Dr. King says you have an income of £1,000, and also an invisible income of £50 worth of services that were rendered to you in conquering Germany, so that your total income is really £1,050, from which you deduct £50 of interest, reducing it to £1,000. Therefore, in estimating the national income, we ought to add to the total money remuneration the amount of "services" rendered represented by this interest before deducting the interest paid for the service, and thus get back to the old figure, the money income. My only answer to this criticism, and I think it is a sufficient one, is this: Suppose that we had not elected to tax ourselves severely during the war, but had borrowed a very much larger sum, then the interest to be paid on the debt to-day would be very much greater. Are we to assume, therefore, that the "invisible income" that we shall each receive in future years in the way of services in conquering the Germans many years ago would have been greater than it is under the present actual conditions? It seems to me that if those services are to be computed at all they could not be measured merely by the amount that had to be paid for *by loan*, and I cannot acknowledge that the services are greater and that we are actually, as a nation, any richer because the war lasted five years instead of only two. Apparently we should have been richer still if the war had lasted ten years. It will be seen how necessary it is to get a clear and agreed idea, after such an upheaval as we have had, on the definition of the national income as a whole. On a similar line of reasoning, if my house is burnt down, and I have to pay a large sum to have it rebuilt, which sum I borrow, then for ever after I am richer than I imagine because I am *receiving* the invisible services of the person who lent me the money for rebuilding.

Taxation is important in its effect upon the percentages of immediate partition. It is equally important in its effect upon distribution of income in future years, but this subject must belong to a future occasion.

I have attempted to get rid of that vagueness which is the curse of popular discussion. Probably, I have only succeeded by reaching that other vagueness which is the baneful condition of scientific accuracy. Samuel Butler's Erewhonians suffered severely from the incurable "fear-of-giving-themselves-away" disease. "My friend the Professor was the terror of the greater number of his students. . . . I heard of his having plucked one poor fellow for want of sufficient vagueness in his saving clauses paper. Another was sent down for having written an article on a scientific subject without having made free enough use of the words 'carefully,' 'patiently,' and 'earnestly.'"

The statistician is tiresome anyway. His directions to the inquirer are either so simple and general that the wayfarer gets down the wrong road at the first branching; or so filled with inhibition and detail that the excursion can only be undertaken with headache and fear by the plain pedestrian.

VII.

AN INDEX OF PRODUCTION.

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AN INDEX OF PRODUCTION.[1]

THE NATURE AND OBJECT OF INDEX NUMBERS.

LONG before a satisfactory index number was compiled or, indeed, generally agreed to be practicable, the desirability of such a device was often expressed by economists and political writers.

Bishop Fleetwood, over two hundred years ago, compared prices at different periods by taking the total of a large number of different things, including the wages of labour—a principle almost identical with the modern index number. Poulett Scrope, in his " Principles of Political Economy " in 1833, said:

> It is proposed to correct the legal standard of value (or at least to afford to individuals the means of ascertaining its errors) by the periodical publication of an authentic price current, containing a list of a large number of articles in general use, arranged in quantities corresponding to their relative consumption, so as to give the rise or fall, from time to time, of the mean of prices, which will indicate, with all the exactness desirable for commercial purposes, the variations in the value of money; and enable individuals if they shall think fit to regulate their pecuniary engagements by reference to this tabular standard.

The desire to obtain some kind of stability in the standard of deferred payments was at the back of all these original efforts.

In 1888, long after index numbers had become an accomplished fact and very useful to the economic community, the report of the British Association put this aspect first among the objects for which this measurement was undertaken:

[1] Based upon an address to the Association of British Chambers of Commerce, February, 1923, and correspondence in *The Times*, *New Statesman*, etc.

1. The fixation of rent or other deferred payments extending over long periods of time for which it has been desired to obtain a currency of a more stable sort than money is supposed to be.

2. To enable comparisons to be made between the value of money incomes in different places, which is often an object of great practical interest: not only individuals contemplating residential changes, but also Governments and other large spending bodies, spending money in widely distant places, having to consider this question.

3. To enable historians and other students making comparisons between past and present to give an approximate meaning to the money expressions which they deal with, and say roughly what a given fine, or payment, or amount of national revenue or expenditure in a past age would mean in a modern language.

To which some would add:

4. To afford a measure of the extent to which trade and industry have been injuriously affected by a variation in prices; and of the correction which it would be desirable to apply to the currency.[1]

An Index of Cost of Living.

The idea of a specific application of index numbers to measure the "cost of living" came later—at any rate, so far as practical uses were concerned—and it was not until the surprising changes in the value of money, brought about by the finance of the war, necessitated some ready means of ascertaining real wage equivalents, that such indexes came into public prominence. Still more importance attached to the cost-of-living index number when it began to be used as a test of the extent to which money wages should be *reduced* on the general fall in prices. Common appeal is now so readily and naturally made to this standard that it may be said to have entered into the general thought, and that conception of justice possessed by the multitude which is still based nearly always on pre-war conditions. The underlying assumption is, of course, that whatever was paid in real wages

[1] Palgrave's Dictionary.

before the war was at any rate a minimum standard, and that the worker must at least be entitled to that much, if not more. If it can be shown that the "cost of living" stands at a higher figure compared with pre-war cost to an extent relatively greater than the change in his money wage, he has that kind of grievance which is readily understood and commands wide sympathy. I do not, of course, pretend that there are any actual cases where a cost-of-living sliding scale arrangement exists under which the wages paid since the war have been precisely the 1914 wages with an addition measured by the cost-of-living index. In some cases the rate to which the index has been applied has been even higher than the base before 1914, and in others the percentage of increase has been higher or lower than the cost-of-living index. There has been room, of course, for all kinds of bargaining and negotiation. But the fact remains that this general conception that the worker is entitled to the same real wages, the same actual quantity of goods for his own consumption and for his family, has been behind the whole wage theory and practical wage settlement of the last five years. It has been such a convenient and ready way of avoiding disputes or settling them when all other tests failed, that it is not surprising that wide use has been made of it.

As time has gone on two classes of objection have become obvious. The first relates to defects in the present index itself, and the second to fallacies in its application on present lines.

The Defects in the Present Index.

(*a*) It has been urged that the index is not *up-to-date* in its basis. In the early part of the war the pressure upon departments was too great to admit of an *ad hoc* investigation of household budgets on a wide scale, and recourse was naturally had to the Board of Trade Inquiry in 1904, when some 2,000 budgets were collected on a reasonably representative basis. These budgets formed the basis of an "average" budget, and thus indicated the relative importance of different items of expenditure. These "weights" have been applied to changes in the prices of the various commodities included in the index number in 1914. Naturally in twenty years the habits of people change, and it may be imagined that the relative importance of different articles of working class consumption would change; some would even disappear altogether, and others appear as quite new. This has been given as a reason why the index should be revised. As a matter of fact, provisional inquiry has indicated that the importance of the point is not so great in practice as in theory. The use of margarine in 1904 was quite different from 1914, but some allowance was made for this in the original base. There is no other important item that is conspicuous.

It is not true, as is sometimes alleged, that 1904 *prices* have been used. It was only the *relative importance* of different items that was settled by the 1904 figures, and 1914 prices alone were employed for the basis.

(*b*) The index is said not to be inclusive. The omission of comparative trifles, even if numerous, does not, however, invalidate its accuracy. Experience has shown that either their prices move much in the same way as the prices of the main bulk of goods, or that an important and great change in a small item has little effect on the total index.

(*c*) The index is said not to be elastic enough to allow of the "disappearance" of items of expenditure in abnormal times. If oranges appear in the base, and then become, through special circumstances, almost unobtainable, and so command a prohibitive price, they, in fact, disappear from a working class budget and some substitute is taken, yet the index goes on solemnly registering the fancy price. This raises a general question of principle: is it the function of an index to register what it would cost now for a working class family to buy what a working class family wanted in 1914? or is it to show what it would have cost a working class family to buy in 1914 what it wants now? Or is some intermediate compromise desirable? Should the basic budget be taken and repriced to-day, or should the budget of to-day be taken and priced in the basic year?

This particular difficulty was, of course, most obvious during the war, and has less importance to-day.

Mr. John Hilton, of the Ministry of Labour, said:

During the war when scarcity and rationing made it impossible to obtain some foods in the ratios in which they appear in the Ministry of Labour standard budget and when cheap substitutes for some of the dearer foods were being consumed, the index number was charged with measuring the increase in the cost of purchasing articles which could not in fact be purchased, and was alleged to be an inflated indication of the real increase in expenditure imposed upon the working classes. There was truth in that contention, but it had to be remembered that when a family was unable to obtain something which it wished to purchase and was driven to buy instead an inferior substitute, that could not properly be regarded as a reduction in the cost of living of that family. If that theory were to be accepted it would follow that if some article, say boots, became unobtainable by the working classes either on account of shortage of supply or high price, and the working people had to go without boots, the cost of living would have fallen by the amount of the saving they had effected by going barefoot—which was obviously nonsense.

The Labour Party's inquiry into family budgets in 1920 gave one the impression that there was no such great deviation between the forward-working and backward-working methods as to justify scepticism concerning the broad value of the index. All the same, this was in the nature of a happy accident, and we have no right to expect as a matter of course that the result would be repeated, and therefore that no new basis from time to time should be necessary.

(*d*) It is said that an average of many widespread budgets fails to do justice as between different localities and different grades of labour. There may actually be nothing in this point, but again one is not entitled to assume that fact without inquiry. Close fluctuation of wage adjustment in an area like Lancashire might, without any undue stretch of the imagination, be unfairly worked by an index for the whole country, and equally, the claims of skilled workers with £5 to £6 to spend might be different in intrinsic merit from the claims of those with £2 to £3 per week.

(*e*) It is said that no change can be made because it will destroy all continuity with the past. This, however, can be obviated by the use of the chain method.[1]

[1] Referred to on p. 160.

It is possible and even probable that a Government department left to itself will evolve a new index which will be free from objection. But so many people are affected that it is necessary for subsequent psychological prestige that they should be abundantly assured that everything conceivable in their interests and the interest of fairness has actually been done. For this reason, when the period of necessary stability of prices and trade conditions arrives, as it soon should, suitable for a revision of the basis, a representative advisory committee should assist and decide, *inter alia*, upon the actual time to be chosen, the distribution of samples, the necessity for sub-indexes for grades and areas, and similar problems.

The Fallacies of the Simple Application of a Cost-of-Living Index to Wage Adjustment.

The more important question involved in the use of the cost-of-living index number is not, however, in its construction but in its application.

It has been described as nothing more than a device for neutralising fluctuation in the value of a currency. This conception, taken by itself, however, is so fallacious that it is essential that the conditions upon which alone a correct measure or index can be properly applied in practice over a wide field, such as the whole of the national industry, as distinct from a separate industry, should be clearly understood by the employers and by the wage-earners themselves. It should be obvious that if there is a considerable change in the total volume of national production, a change which will be accentuated if there is also a considerable change in the population, then the attempt to pay an identical real wage throughout regardless of these changes is bound to end in grave anomaly.

Assume a community of 10,000 workers, producing a million units of commodities " valued " at £1,000,000. The average real wage is then 100 units, and the average money wage is £100 to purchase them. Cutting out details, if currency changes bring about £2,000,000 of nominal purchasing power, prices will be doubled, the cost-of-living index doubled, and, on receiving double wages, the worker has £200, which buy him 100 units as before.

There is now a widespread view among workers and others that the intention is to give the same real wage as before, and the worker is being led to think he has a natural, obvious, and indefeasible right to a money wage adjusted to furnish him with his original standard of living. But if he has an abstract right, this is not really his right at all; he has a right to one ten-thousandth part of the total production, which is a vastly different matter.

Any adjustment of wages by prices, without reference to the total national production (per head), is an attempt to share out what may never have been produced, and must lead straight to disaster and unemployment. It may be said that in real life the missing units can be drawn from that 10 per cent. section of the population which is " better off "—a redistribution of wealth. But, as a plain, statistical fact, this can lead no distance. If we divide up amongst the 90 per cent. " wage-earners " the whole of such units consumed by the remaining 10 per cent. " better off " *as are of the same class of units required and used by the wage-earner*, we still leave the wage-earner far short of his pre-war standard of goods. It must be realised by all that the price adjustment of wages must be further modified by the change in the aggregate production. We have at one time been down by 20 to 25 per cent. at least upon our pre-war aggregate of units produced, and yet have been behaving as though we had as much as ever.

In discussing the effects of the universal eight-hour day in the light of experience in various countries, an American writer, Mr. W. R. Ingalls, says (" Current Economic Affairs " pp. 18, 65):

The simple economic consideration, however, is whether a people, whose living must come out of production, can radically and suddenly shorten its working hours and still produce enough for its needs. The present position is that we [the United States] are dividing a quantity of production about the same as in 1913 among about an eighth more people. The production is expressed in more dollars through being multiplied by about 1·7 as an average. Some classes of people get more than their share by virtue of a multiplier of 2 or so, while for others the multiplier is 1·5, or maybe 1·1.

If the cost-of-living index number is going to be an important element in determining wage levels at a time when production is rapidly increasing, the working classes must suffer in the converse sense. Following the above illustration, where prices are doubled, the index number doubled, and wages also doubled, when 10,000 workers produce 1,000,000 units first valued at £1,000,000 and then at £2,000,000, let us consider the case (*a*) where the production is 750,000 units and the value £1,500,000, and then also consider the case (*b*) where the production rises to 1,250,000 units and the value and purchasing power to £2,500,000.

The unmodified application of the cost-of-living index does labour an injustice either way, unless the units produced remain the same. In case (*a*) a section of the wage-earners gets an unstable advantage at the expense of the remainder, who must quickly be destitute. That is to say, 7,500 workers raised to £200 each will get their 100 units each (their original standard) and the 2,500 weakest and slowest get nothing, because we have attempted the impossible. In case (*b*) the 10,000 workers would get their 1,000,000 units, but not the proportion of the national production to which they are entitled, and the balance of 250,000 units would go elsewhere. If production improves beyond the basis period, the wage-earner will get his due much quicker by the other method (viz., increasing the wage from £100, not to £200, but to £250) than by the "rough-and-tumble" of industrial forces.

An Index of Production.

It is for this reason that I have suggested that an Index of Production should be prepared which should serve as an overhead corrective to the application of the cost-of-living index. It is not necessary that this should be of high statistical accuracy; it will be sufficient for the community to recognise generally that it is impossible to enjoy a real wage equal to the wage existing before the war if the national production is less by 20 per cent., and that it will be possible to have a higher real wage if the national production is increased. This is a new lesson for employers and employed alike, although, indeed, it ought to be obvious to every one.

Unqualified adjustment of wages by prices, moreover, negatives the intention of indirect taxation. If the tax on tea is doubled, with the intention that the tea consumer should pay, and the increased price of tea helps to put up the cost-of-living index, and then the consumer's wage is put up to correspond, the tea consumer is not taxed; the tax is shifted, "worked out" once more on to the receivers of fixed money incomes, and into unemployment and distress.

In the same way the wage-earner could not secure any relief if indirect taxation were remitted, under a rigid system of cost-of-living indexes, as applied to wage determination. It may, no doubt, be urged that the truth of this contention is limited to the taxation of such articles as enter into the index number, *e.g.*, that it would not apply to alcoholic drink or tobacco or entertainments which do not appear therein. This exception is not, however, by any means true without reservation, for it is by no means certain that a tax on an article omitted from the index basis will be without effect upon the index.

Without going into an elaborate analytical proof, it must be pointed out that the effect obviously depends upon the relative elasticity of demand on price changes in the article which is taxed, and in any article included in the index the demand for which is stimulated or reduced owing to substitution. In certain conditions the index number would undoubtedly rise, and this, therefore, would put up the whole wage, including that part of the wage which is spent upon the taxed article. It is impossible, therefore, to accept the bare contention that if the taxed article is omitted from the index the argument does not apply. I am here making no plea either for or against indirect taxation—that is not the point at issue. The point at issue is that the intention, whatever it may be, either an imposition or a remission of tax, may be wholly or to a considerable extent set at naught by the unmitigated application of index numbers in the settlement of wages.

OBJECTIONS TO THE USE OF AN INDEX OF PRODUCTION.

The first important objection to the principle (of a constant share and a varying amount of production) that I have set out is that it would be both unfair and disastrous to make the share of the workers a constant share in the total volume of production as against the present tendency (under the principle of a constant amount and a varying share) to give them too little in periods of " boom " and too much in periods of " slump " that follow from the simple application of the cost-of-living scale. It is said that the other principle would, in fact, thrust upon the workers " by far the greatest part of the burden of trade fluctuation," whereas, of course, the risks of industry, according to economic thinking, should fall upon capital and are rewarded by differential profits.[1]

Firms, as we are seeing to-day, can largely guard against bad times by building up large reserves, open or concealed; it is far more difficult for the workers to make provision against adversity. They have enough to do in making provision for sickness and old age; to thrust upon them the burden of saving to insure against low wages—as capitalists insure against low dividends by means of reserves—is, in fact, impracticable. The worker is not equipped to bear the risks of industry in anything like the proportion which wages bear to profits. Wages are not a residuary claim, but should be a first charge on industry.

While, therefore, it is true that an absolute standard of life cannot be guaranteed without any regard to the volume of production, any system of varying wage rates in accordance with the volume of production would press with extraordinary harshness upon the workers during times of slump, and there would by no means be adequate compensation in any benefit that might be drawn from it in periods of prosperity—even apart from the danger that employers, who three years ago were keen advocates of the cost-of-living scale, might swing back to it when the return of good trade again made it less favourable than the " production scale " to working-class claims. It clearly will not do to have one scale for the swings and another for the roundabouts; but it will hardly do better to have a system which increases, instead of diminishing, wage fluctuations. . . . Greater stability of wage through the whole period of the trade cycle would do a good deal to diminish the ups and downs of industry and production.

[1] *New Statesman*, January 27th, 1923.

I am supposed to imagine—

> that a cost-of-living scale maintains working-class earnings in terms of purchasing power at a constant level irrespective of trade fluctuations. This clearly is not the case; for the rate of wages, which alone is governed by the scale, is to be sharply distinguished from the level of earnings. For example, many industries meet bad trade by working "short time." The immediate effect of this is to reduce earnings without altering the rate of wages. Again, when trade is bad, overtime ceases; and, again, earnings fall without any change in rates. Even where systematic short time is not worked, employment becomes discontinuous and earnings fall heavily. All manner of special allowances become inoperative; piece-work earnings fall. No figures are available to measure the decrease in working-class earnings which results from all these causes; but we are prepared to assert, without fear of serious error, that the reduction in earnings, apart from all changes in rates of wages, does not fall short by far, if it falls short at all, of the fall which has occurred in total production. The basing of wage rates on production would therefore involve a fall in earnings, not corresponding to the fall in production, but probably twice as great, even when the huge loss of earnings due to total unemployment is left out of account. And this fact, we think, is enough to demonstrate the absurdity of the contention that a "production scale" would establish greater equality of sacrifice among all classes in meeting a trade depression.

Although I have given illustrations crudely simplified to bring out particular aspects, I do not, of course, imagine that the wage-earner will actually have an unchanging share of production—he will, and should, have more in a slump and less in a boom than the exact proportion, and capital must still take the brunt of residual effects of cycles in trade. But if, upon a large deflationary change, wages come down slowly, sticking at levels which have a purchasing power statistically impossible having regard to the aggregate of production, the process is not merely a cutting into the residual margin, but an annihilation of it, and a cutting into the *weaker elements* of the aggregated wage-earners' reward itself. It is thus as bad for labour in the aggregate as for capital.

If an average production of 100 fluctuates between 120 and 80, it may be well that average wages of 100 should fluctuate only between 110 and 90, and it is the task of capital to carry the requisite reserve of commodities. But if the wage to be perpetuated is taken on a " peak " basis (practically 1913–14), then the chance of capital being able to carry the reserve on that level is remote, and this seems to be what has been recently attempted. It is clear that in the long run there can be no greater real reward per working hour than the product per working hour. Therefore, the difficulty is not escaped by working shorter hours, if the rate per hour of real reward is greater than the output of commodities per hour. The criticism seems to involve the idea that " short time " would represent equilibrium in this matter, but actually it represents a breakdown of the attempt. The various sequels of short time and such devices, enumerated as disproving my contentions, seem to me to be the natural deadlock which would follow any attempt to pay more than the " produced wage."

No one can take exception to the argument about the swings and the roundabouts, but it is certainly unsound to look upon trade fluctuations as a series of movements settled by external conditions, and to regard the degree to which the fluctuation is shared between capital and labour as the only elements susceptible of control and modification. It is more probable that the series of trade fluctuations itself is largely affected by this internal distribution, and if real wages are on a relatively fixed level the fluctuations will be more severe than if real wages are more mobile and responsive. For when we have increasing prices, increased profit largely arises because wages lag behind in the race for monetary change of expression, and business psychology bases itself upon this enhanced profit, tends to assume there will be no commensurate increase in wages, and in its optimism and separatist complacency has too heavy a forward programme, thus increasing the height of the boom. Similarly, on the subsequent slump, depression and the prospect of loss are increased because wages do not go down readily enough in proportion, and thus the collapse is more striking.

There is much to be said for the view that greater mobility of wages would considerably lessen the actual amplitude of trade fluctuation, and that the greater relative fluctuation of wages in that smaller amplitude would be actually a smaller absolute fluctuation in wages than before. If the whole amplitude of trade fluctuation is reduced there is room for the wage fluctuation to approximate more closely to it, and yet still be less violent than it is to-day in consequence of wages "rigidity."

Again, I am far from contending that the application of cost-of-living index numbers in practice makes the real earnings greater than the current production. What I maintain is that the attempt to achieve the impossible brings about every kind of unsatisfactory result, and certainly gives an undue advantage to the stronger trades and to those which have not to face the acid test of foreign competition.

I have nowhere contended that index numbers are really a proper device for adjusting wages. I think they do violence to the economic doctrine of marginal productivity, which I believe to be true, and in the long run irresistible. But we need, in our difficult modern conditions, facilities for ready adjustments to approximate new levels, overcoming economic frictions. I hold the view, however, that if impossibilities are not to be attempted, and if the long-run interests of the wage-earner, and not the short-sighted interests, are to be considered, some modification in the application of the cost-of-living index in the light of aggregate production is desirable where there are large movements in either prices or production from the basic standard.

An Index of Production would have great value not so much because it would be applied with any degree of exactness to particular settlements, but because it would give a kind of moral background and, at the same time, a background of inexorable facts to these matters.

The General Utility of an Index of Production, apart from Wage Adjustments.

It would be disastrous for an Index of Production to be produced and maintained solely for this purpose. It would need to win its way to public favour for its general utility as an indication of national well-being, and when once accepted as part of our economic furniture in this regard no one would resent reference to it when the general level of wages was in question.

The widest possible divergence of thinking, even amongst experts, has existed during the last three or four years as to the amount of our national production. In view of the precise statistics which we possess of most of the matters which affect our national progress, it is really absurd that we should be so much in the dark upon a matter of this importance. The great value of a periodical census of production is very largely lost because we know so little about the intervening periods, and if we had anything like precision in facts relating to the movement of our aggregate production, so much would be explained or explainable in our short period economic fluctuations that we should have made a genuine step forward in public consideration of such problems.

The position regarding national productivity is just as obscure in the United States as it is here. There is a popular impression that the American people have become immensely richer either by reason of, or since, the Great War, but if one looks at the various statistics that bear upon this problem it is difficult to find an actual warrant for this view, always provided one remembers that double the gold in the bank vaults does not improve the standard of life.

Agricultural products per head are practically the same in 1922 as in 1915, but they are rather more than in 1913. For all other raw materials, however, there has been a steady decline, and 14·03 tons in 1913 per head have now sunk to 10·79 in 1922. A well-known American statistician says:

> Any idea that we grew richer out of the war is preposterous. The American people did not add to their wealth so much as they would have done normally if there had been no war; in point of fact it is doubtful if they added anything.
>
> I find no evidence in the statistics of national production or accumulations of wealth that the efficiency of the American people has so increased during the last ten years as to afford them an enjoyment of a higher scale of living on the whole. (Ingalls, *op. cit.*, p. 83.)

It may be seen that in manufactures production has increased greatly in some things, such as automobiles, electrical apparatus, telephones, etc., but in other things with equal certainty it has decreased, such as railway equipment and house building. Much of the expenditure on motor-cars, for example, as been at the expense of upkeep of existing production capital.

Mr. Hoover, in an article written in June, 1923, spoke as follows :

We must get our minds away from the notion that pre-war standards of living and volume of business would be normal now. Normalcy is a vastly higher and more comfortable standard than 1923. We must not judge the state of business activity by pre-war figures, but by a hugely increased base. We must not be frightened when our output of steel or textiles or automobiles, lumber, corn or hogs, or our car loadings amount to figures far in excess of those that would be implied alone in a normal growth of population.

There has been in the past decade an unparalleled growth of our industrial and commercial efficiency and our consequent ability to consume. I do not refer to that growth of productivity which should naturally be expected to accompany the addition of 14 millions to our population during the last decade, nor do I refer to the increase in dollar figures due to higher prices. Entirely over and above these contributions to increased figures, we are producing a larger amount of commodities *per capita* than ever before in our history.

Precise comparisons are difficult to adduce. But exhaustive study from many angles of production over average periods of ten years apart, before and since the war, would indicate that while our productivity should have increased about 15 per cent., due to the increase in population, yet the actual increase has been from 25 to 30 per cent., indicating an increase in efficiency of somewhere from 10 to 15 per cent. ("Nation's Business," June, 1923.)

If it is intended to compare, say, 1922 or 1923 with a period ten years earlier, these statements by Mr. Hoover are quite at variance with the ideas of prominent statisticians in the United States.[1]

Statistics are available for agricultural production for raw materials, for transportation service, and to some extent, for building activity, and Mr. Ingalls takes the consumption of the principal commodities in the United States in pounds per person for the triennial period 1912 to 1914 and compares it with the triennial period 1920 to 1922. While, of course,

[1] See especially " Current Economic Affairs," by W. R. Ingalls, 1924.

there are quite a number of increases, there are a number of most important decreases, and after considering them separately Mr. Ingalls concludes :

> In general, this statistical study of the consumption of commodities in the United States bears out the previous conjecture or deduction from other data, that on the whole the people of the United States were not in the enjoyment of so good a scale of living in 1922 as they had in 1913. The manner in which these data coincide with other data of totally different character, but of economic nature, is impressive.

The Use of an Index of Production in considering Currency Problems.

Great progress has been made in recent years in the theory of money. I need not enlarge upon it here except to say that we have fairly clear methods for measuring the total quantity of credit and currency which is operating as purchasing power. We have several excellent measures of the changes in the price-level, but the third important element in the equations of various kinds in modern presentments of the quantity principle, *i.e.*, the quantity of production or of goods, is almost wholly lacking. If we possessed a reasonable means of measuring this from time to time, in a few years economic analysis applied to the consilience of these three important elements would bring to light, I am sure, economic truths in matters that are to-day so obscure.

At present financial opinion is divided between the necessity for " getting back to gold," and following the fortunes of gold values wherever they may lead, on the one hand, and pursuing the policy of a " managed " currency indefinitely, as a further stage in economic progress, with emancipation from a wayward and barbaric physical basis, on the other. It can be said without serious doubt, that if a " managed " currency becomes the adopted policy, some good indication of the volume of production will have to be one of the most important items in the data under constant review by the " managers." In the past, booms and depressions have been accentuated largely because each individual has behaved as though his own programme of expansion or reduction were almost the only one in the field, and the cumulative effect of these erroneous individual judgments has been disastrous. The managers will be little better placed for their task if the impressions created by *ad hoc* individual observation are not corrected and limited by statistical evidence. This use of an Index of Production, although indirect, is probably in the long run its most important and compelling one. For even under a gold standard, credit will demand "management."

THE PRACTICABILITY AND TECHNIQUE OF AN INDEX.

It is stated in some quarters that the whole idea of such an index is impracticable, but I think this opinion emanates mostly from those who are not acquainted with statistical technique. My general idea of the index is that it does not proceed upon any absolute magnitudes at all. Absolute magnitudes are only obtainable at a time when a complete Census of Production is made. What we need at other times is an index which will register the *change* of any particular period compared with the preceding period. A system of sampling would be inevitable. Sampling in skilled hands is safe and has the requisite degree of precision. In unskilled hands it may, of course, give rise to many mis-statements and misapprehensions. I should suggest that a certain number of firms in every industry should render a voluntary return confidentially to the Statistical Department of the Board of Trade every quarter. This return would show the percentage of change in production as compared with the preceding period or the previous year as the case might be. Each concern would choose several of its chief or standard lines of production suitable as a test or indication of the whole, and would be at liberty to change these from time to time if there were any material alterations in their working conditions. The great thing in each instance would be that the quantities chosen, either tons, or pounds, or yards, or whatever the test might be, should be fairly representative of the activity of the business as a whole. If necessary, under official guidance, the index for a particular firm could be a composite index of a number of percentages for different lines of manufacture.

The Census of Production would have given the Board of Trade, under the seal of confidentiality, some idea of the output magnitude of the respective concerns. The indexes received from each concern could then be weighted in relation to each other, and a total index for each industry obtained. The Board of Trade could fairly determine how far the sample taken was large enough and representative enough and free from bias. The percentages which have been obtained for the separate industries could then be brought together into one index for production as a whole; also by a system of weights regard could be paid to the respective importance or size of output of the different industries. All that is required is concerted and continuous action on the part of a number of firms under skilled governmental guidance.

It might be thought by those not acquainted with statistical methods, that if one firm should change its production or if a firm should drop out from the list, or if there were any other discontinuance in process, the whole validity of the index would be destroyed. Such, however, is not necessarily the case. By the use of the chain method the index rises superior to any such small items of discontinuity. Thus we get a series of links:—

Link A .	1914—100	1923—170 (on like material).
Link B .		1923—100; 1930—90 (on slightly different material).

The ratio from 1914 to 1930 is then closely determinable as 100 : 153. So long as the two parts of any one link are made up on comparable lines there can be considerable change in the material for the same year which ends one comparison and begins another, without introducing considerable statistical errors.

It may well be that over a period of time some error due to the cumulative effect of discontinuance of business would creep in. This, however, can be rectified by each new Census of Production, when a fresh start is obtainable. Just as population statistics for the inter-censal years are closely determinable by reference to the birth rate and death rate statistics, so after a few years' experience the process of interpolation through the index in the inter-censal years would be skilled and accurate. There is nothing whatever impracticable about the statistical technique of such an index, provided that the Board of Trade are given sufficient trust and the necessary continuous voluntary action is forthcoming from, say, 10 or 15 per cent. of the firms of the country.

One of the smaller difficulties that would arise is due to the fact that a sample from a fixed number of concerns reflects rather a static condition, and does not allow for the " unrevealed growth " due to the accession of new concerns in the field of production. For example, the total increase over a period might be 10 per cent., of which 8 is due to increased production by old established concerns represented by the sample, and 2 due to new production by newly established businesses. This kind of slack would be taken up upon each new census. Experience would show the nature and extent of the correction to be made.

It would be necessary, before launching an index in practice, to have a small representative committee to agree upon the lines upon which it should be drawn. If, as might very well be the case, an inquiry was made into the cost-of-living indexes also, this production index would form a subsidiary task for such a committee.

The Place of " Non-producers " in the Index.

One of the important points to be settled would be the treatment of non-material production.

In practice, I imagine it can be dealt with in either or both of two ways—in the construction of the index and its application. In the construction technical points arise. Apart from changes in a customary length of a working week, the clerical and overhead adjuncts to material production move in the same direction as, but far less violently than, direct production. At the basis period the money value of immaterial, in relation to material, production furnishes a relation for their volume of " output," and one possible method is to keep this an inert factor, or relatively constant item ; *e.g.*, in the basis years, assume workers get £1,000 and "non-producers" £300; then, if the production basis is 100, the total index is 130, and in a later year, when the production figure falls to 80, the total index is 110.

In the application the touch is free-hand, and *ad hoc*, for much must depend, as it does to-day, upon the social and contractual nature of the calling; what are practically life contracts (such as Civil servants' scales) and customary charges (doctors' and lawyers') stand aloof from minor fluctuations of the index, and are modified only by the larger and more lasting changes. If the productive spirit of the community changed so that the material output fell to 50 per cent. per head (even without any change in price levels), it is doubtful whether a bank clerk of unaltered diligence could escape a lower standard of living. Equally, if industrial arts doubled the production per head (but the price level were unaltered), the same bank clerk could not fail to secure a higher salary, *i.e.*, a higher standard. A modified application of the composite index would indicate the existence of a case for such a change, which otherwise would require years of agitation and the absence of new entrants to induce.

In using index numbers for adjustment of wages we are doing something that is probably unsound on strict economic principles, because theoretically the reward of any factor in any business must be equivalent to its marginal productivity; but when violent currency changes are taking place theory does not find its level without grave human disturbance, and the justification of such devices is their practical utility on grounds of social expediency and quick action.

VIII.

A SHIFTING MONEY STANDARD AND FISCAL BURDENS.

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A SHIFTING MONEY STANDARD AND FISCAL BURDENS.[1]

It cannot be entirely without precedent for a guest of this famous club to return the oil of mourning for joy, and the spirit of heaviness for the garment of praise, and, by the choice of a lugubrious address, lead the dinner, given in his honour, to a mournful and soporific close.

In the social changes of the past, more especially as between different classes at one time, the effect of the alteration in the standard of value was never very apparent, nor even, perhaps, judged by to-day's tests, very important. It has been rightly remarked that as centuries have passed by the nominal standard of value has tended to depreciate continuously—a depreciation not, indeed, great when measured in short periods, but obvious when viewed in periods wide apart. The records of prices that we have show that, however much they have fluctuated over short periods, each receding tide has tended to leave the low-water mark at a higher position than before. It is for this reason that we are able to look back upon the astonishingly low money values of many articles of common consumption—rentals of houses, cost of cattle and produce. Even a fifteenth-century French proverb runs: "*Or va pis que devant.*"

It is not merely that the metals used for money have become very much more plentiful, but also that the use of them is now, owing to modern developments of credit, much more effective. A pound of gold or silver can be used to-day with the same effect as five or six pounds of gold or silver would have had in past generations. This, of course, has meant that everybody who has made a contract expressed in money and not to be finally discharged for a long period has tended to receive really less, either in his own person or

[1] A report of remarks addressed to the Political and Economic Circle of the National Liberal Club, October 24th, 1922.

his heirs, successors or assigns, than he had bargained for or expected.

Depreciation of the standard of value, or, as we call it more usually, increase in price, has taken a constant toll of fixed values. Fixed money values have continually meant less and less in real values, and, in this sense, each generation of workers has levied a death duty upon the wealth that has been saved and stored up in past ages. If, judged by modern ideas, inherited wealth has tended to have any degree of inequity in its claim upon current production, the fault has, at any rate, been materially mitigated by this continual process of re-estimation in real values. When we learn that a piece of land was worth £1,000 many years ago and is now worth £5,000, it would seem that the "unearned increment" is 400 per cent. on the original value, but if we were to examine these two values by reference to what they would buy at the two periods it might be found that the unearned increment was generally far less striking.

Values Compared over Periods of Time.

I think there are some who still fancy that if we returned to a gold standard we should have something like fixity of values, but we have no guarantee of this, and the chances are strongly against it being the case. Even if only a few countries come back on to a gold standard, and all the gold is as effectively used amongst those few as it used to be, then failing a very remarkable increase in production, we are bound to have a very great rise in price. Even on a gold standard, therefore, an increment value duty might become ridiculous. This possibility was not wholly unforeseen in 1909, and when the land values duties were being passed through the House of Commons, Lord Robert Cecil had moved that there should be deducted from any increment any "addition to the value caused by a general rise in prices estimated by reference to an index number to be fixed by the Board of Trade," his object being to avoid any charge on a fictitious or unreal increase in value. Mr. Lloyd George said

that of all the remarkable amendments to this or any other Bill this was the most amazing, and he found it difficult to oppose it

> in language which would pass the Chair. (Laughter.) What did it mean? That our taxes were to be run up and down according to some index number. He hardly thought the noble lord could be serious. He was not sure that a decrement might not be claimed as an increment. Suppose the price of gold were to appreciate, and land worth £2,000 now were sold thirty years later for £1,900. There was an apparent decrement of £100, but, as a matter of fact, according to a scale of this kind, there was an increment of £300 or £400. . . . He could hardly think that the noble lord seriously meant to press the amendment.[1]

It was suggested that a letter from Professor Pigou to *The Times* had given rise to the motion. Mr. (Sir John) Simon urged that its admission would mean altering even the income tax exemption limit.

> In truth, were the proposition adopted, instead of one Court of Appeal, consisting of legal luminaries, being sufficient to remove the difficulties, they would have to go to a court of Cambridge professors. (Laughter.)

Mr. Balfour said that the difficulty was a condemnation of the whole system of the tax, for the whole system "implied eternity," and that indicated the necessity for a "more stable standard than that which the country at present possessed." The amendment was defeated by 277 to 85.

Fiscally, we have very little experience of taxes which depend entirely upon a comparison of values at two widely distant dates, and, as the increment value duty has gone, maybe for years, maybe for ever, we are not likely to be troubled with this aspect in the immediate future.

The increment duties in Austria, operating together with a kind of levy, gave rise to extraordinary difficulties which illustrate the point being made. The necessity for meeting the liability upon the capital tax compelled realisation of a so-called profit; this compulsory realisation immediately attracted liability to increment duty.

Suppose that a man possessed ten houses worth £1,000 each = £10,000, and during the inflation period they rose in nominal value eleven times, say, £110,000. There would be a difference of £100,000 on which, if the duty was at 30 per cent., he would pay £30,000. The owner could sell three

[1] *The Times*, July 7th, 1909.

houses for £33,000 and pay over the £30,000 for his capital duty. But on this sale an increment of £30,000 would be revealed upon which the duty would be, for example, £9,000; he would thereupon sell another house to pay that duty. Even this would not be the end of the chain. At any rate, he would be left with six houses worth £60,000, instead of property worth £80,000, as was intended.

The proposal for a levy on war wealth, which was so active in 1919, was a similar increment duty on a larger scale. The change in fortune between 1914 and 1919 which it was proposed to assess, was, in a very large number of cases, a currency change and not a change in real wealth, for the tax, in many instances, would have been not so much a tax upon real increment as one upon those who had suffered the *least real decrement.*

Apart altogether from the anomalies arising upon two valuations, it was agreed on all hands that, in quite a considerable number of cases, payment would have been made by instalments instead of outright; that being the case, if the proposal had been effective, we should now be in the thick of the instalment system at a time when every payment would be approximately twice as heavy in real values as it might have been at the time of the assessment.[1]

Taxes involving Valuation.

In the popular mind, income and capital present very little difference from the point of view of administrative convenience in valuation, and it would probably be difficult to bring home to any one considering the matter for the first time how widely different are the issues involved in the two bases.

Income is something that accrues within a brief period of time, and is closed within that period. It can therefore be determined without any drafts at all upon an unknown future, and the facts of taxation, such as the rates of duty and scales of magnitude, can be made to fit with entire exactness an actual set of facts that have taken place.

[1] The anomalies arising upon payment by instalment over a period during which values are changing in respect of the capital levy are here omitted, as they have been dealt with elsewhere (on page 232).

How different is the case with the valuation of capital! Here it is no use taking a long period of years in the past and saying that the capital value of a given asset must be based upon that lengthy experience of annual income. Nobody will pay anything or value anything in the past! Every capital valuation must be made by reference to the future.

Now, it would be one thing to have a tax based upon a capital valuation and paid outright, and another thing to have one which in payment and in final adjustment of assessment was coterminous with the period over which the valuation extended its survey in arriving at its results. In the latter case, continually to adjust the assessment by reference to results as they emerge is, obviously, hardly different from an income tax which takes the actual results year by year. In the first case, no taxation can be paid upon a basis of capital valuation outright unless it is small enough—say, not more than 10 per cent. on the valuation—to come out of the annual income or yield. If it is not sufficiently small, then part of the capital must be given up or pledged, or the tax must be paid in instalments. In the case where the capital is such that it does not lend itself to being given up, then the last two alternatives—pledging and instalments—are the only possible ways out.

Now, both pledging and instalments are postponements over a period of time of the idea of an outright or instant payment, and we have to face the fact that over that period of time the whole of the circumstances upon which the payment is being based may be giving the lie to the original forecast. In the instance of the mortgage, the repayment of the principal has some time or other to be faced, and the taxation, therefore, in its capital effect, may actually take place on some date when the valuation itself is absurd. This raises two questions: (1) Can a capital valuation of all classes of assets be made of a sufficiently satisfactory character to enable us to base a very large payment upon it with equity? And (2) if the actual operation involves extension over a period of time when the valuation itself is belied, need one admit a claim, even in an extreme instance, for any revision of the payment that is being made? If so, what are the circumstances in which such a revision would have to be undertaken? Also, if one is prepared to revise an assessment five years later of a case which is being paid in instalments, is it equitable to ignore the case of the assessment where the duty was paid outright, but in which, had it been paid by instalments, the claim for adjustment would certainly have arisen? Elsewhere I have given the case of the three ships. One would always get such parallels, and the question is whether one can resist all claims for adjustments and, if they cannot be resisted, if one can logically stop short of adjusting everything? There are three main factors in finding the capital value of all income-producing assets. First, whether the present known amount of income is steady and constant. Secondly, whether the length of life is perpetual and certain, or if it may be terminated and uncertain. Third, the possibility that the current market rate of interest may alter to a sufficient extent to change the rate at which the capitalisation of income proceeds in practice. There are some income-yielding assets which escape the uncertainty of this valuation because they are repayable at call, or practically so. In this way the capital value of a mortgage, if well secured, does not vary with the rate of interest. If there were no variation in the amount of interest, and we knew the amount of the present income, and that income was assured either for a definite number of years or in perpetuity, then the valuation would be simple and fixed, and not give rise to any difficulties. Next we may postulate that the amount of income is fixed and steady, but we do not know for what length of time it will continue—*e.g.*, a life annuity. This is a stage removed from a fixed valuation.

Then the next class of case is where the income is unsteady, though we may know it exactly from year to year as each year unfolds itself; but the life is a constant one or perpetual.

And the last case is where the income is unsteady and the life uncertain, to which we add the unknown fortunes of the general rate of interest. Such a case would be the life interest in a business, or the ownership of a diamond mine.

The possibility of the variation in the market rate of interest lies over all these valuations and cannot be escaped. These alone serve to make a really heavy tax upon capital values something of a lottery. It is true that they may be the same for all people at the same time, but if a man has to raise a mortgage it is on the date when he pays off that mortgage that he really bears the burden of the levy in its final effects. Suppose that to-day he has even such a secure thing as War Loan at 101, and it were mortgaged for 50 to pay the levy of 50 per cent. thereon. In a few years' time it drops to 75. At that stage the owner has the power to sell, and sells, paying off his mortgage. He retains only a third of his original quantity of War Loan, whereas the man who can pay outright by giving it up or selling it retains 50 per cent., which, later on, is worth £37 10*s*. He is better off by 50 per cent. than the man who mortgaged and had only £25 left. Where mortgages in instalments are concerned, inequality can therefore be brought about merely by the rate of interest changing.

How much more important is the inequality due to the uncertainty of future income and uncertainty in the life of that income?

The Effect on Income Taxation.

Such changes of value as we have had in recent years may even introduce difficulties into the whole scheme of taxation of income.

When the taxation for a particular year is based upon an average of past results it is obviously expected that there should be an evenness of values which will make the past an equitable test of current tax-paying capacity.

Suppose there is such a change of values that with the same real business and real profits, profits expressed in money proceed as follows:

	£		
1st year	400		
2nd year	600	Average: £600 at, say, 2*s*. 6*d*. in £1 =	£75.
3rd year	800		
4th year	1,000	at, say, 4*s*.	= £200.

Then, although the tax-paying power is £200, or 4*s*. in the £1, the actual payment is only £75, or 1*s*. 6*d*. in the £1 on the year's income.

In the reverse case, when the income is £400, and the tax-payer is paying upon £800, the rate may be 5*s*. instead of 2*s*. 6*d*.; probably it will be even more, because of the progressive scales involved.

When you get a continuation of changing profits through changing currency values joined up with a fixed progressive scale, you get results of the most extraordinary character. This has been illustrated in a remarkable way in Germany recently. The expression of real income in paper marks, as you know, altered enormously, and yet there were fixed limits in the progressive scale which settled the percentage to be taken of each money statement of income, and so ran up the percentage to high figures until the scales were altered.

If progressions have to be artificially altered in order that they may be, as far as possible, consistent with the original intention, obviously they introduce the greatest uncertainties both in administration and business.

It is often found, however, that real profits do not remain the same during the change. How much more must the difficulty be accentuated where a real decline in profits is emphasised by deflation? Take the following case:

$$\begin{array}{lrl} & \textit{Real.} & \textit{Money.} \\ \text{4th year} & £400 \times 1 = & £400 \\ \text{3rd year} & £600 \times 2 = & \left.\begin{array}{l} £1{,}200 \\ £2{,}400 \\ £4{,}000 \end{array}\right\} £7{,}600 \div 3 = £2{,}533. \\ \text{2nd year} & £800 \times 3 = & \\ \text{1st year} & £1{,}000 \times 4 = & \end{array}$$

Here it will be seen that the real income of the fourth year is one-half of the real average, and the money income is less than one-sixth of the money average. Even a flat rate of 5 per cent. on the average income is more than 30 per cent. on the actual income of the year.

Let us take a particular income-tax feature—viz., the claim for depreciation and upkeep. The taxpayer has been very eager to claim as much as possible, and it has always been one of his grievances that his allowances are not large enough.

It may be shown to him that over the whole life of his asset he will receive its full value, and upon it being urged that he has, therefore, no grievance, his reply will be that he prefers to get his allowances "early in its life," I suppose on the principle that a "bird in hand is worth two in the bush," and also that "when you love early you love best." But I am afraid that this idea no longer holds good—at any rate as regards taxation. It pays to claim the bulk of one's depreciation at a period of low-price levels, as the following example will show:

Ship worth £100,000, and lasting twenty years; allowance, 5 per cent. per annum.

First quinquennium £25,000 (average price level = 200).
Remainder . . £75,000 (average price level = 100).

The actual real allowance value, on a 100 basis, is £87,500. But if the allowances were:

First quinquennium £25,000 (average price level, 100)
Remainder . . £75,000 (average price level, 200)

the real value of the allowance is only £62,500.

If the ship is bought when prices stand at 200, and the allowances are made from profits over a period which averages 100, the real value of those allowances is £200,000.

Short Period Anomalies in Assessment and Collection.

But comparisons need not be over long periods of time in order to give rise to difficulty, and they apply even to the computation of the profits of a single year.

The most conspicuous example of this difficulty is, of course, to be found in recent German experience. In June, 1922, public opinion was waking up to the fact that much of the trouble of inflation was due to this particular difficulty. The June number of the *Juristische Wochenschrift* contained two articles on "Money Depreciation and Valuation in Fiscal Law," and "Capital Increments and Money Depreciation," which pointed out the disastrous results of failing to take the factor of depreciation into sufficient—if any—account. This factor applied to the *returns* of total income and of capital. The proper basis of the capital increment tax was the sentiment that the State or local bodies should participate in unearned increments. But the writers went on to say that the working of the tax became purely confiscatory in cases where the capital had only nominally, and not really, increased. It led eventually to the dissolution of the capital. Instead of commensurable quantities being measured against each other at the beginning and end of the year, when accounts were balanced, two factors without a common denominator were compared, and out of the difference between the numerators a profit was squeezed. Such a profit would appear, even though it did not really exist, and when the net results of the year were a decline in real wealth. The quantity of goods at disposal was less, and the satisfaction of needs became more and more difficult.

While this aspect of the matter was undoubtedly true, a much more serious effect of changing values was in the continually falling proportion of receipts to expenditure which came to the State. Obviously, in the case of a budget balanced upon one level of prices in which the most considerable items of receipt were such taxes as income tax based on past results, the income side of the account was not capable of very rapid expansion in response to currency changes, whereas the expenditure side almost invariably reflected them at once in increased wages and salaries, cost of materials, etc.; hence the deficit, which would be cumulative in succeeding years. This provided its own cause for further depreciation, and the trouble must needs become progressively worse. There is no automatic remedy, of course, when actual real expenditure exceeds receipts. But a remedy might have been found, if it had been looked for sufficiently early, for the trouble arising through the different rates at which the two sides of the budget account were affected. This would have been the adoption of a coefficient by which to increase all payments of direct taxation, so that they would represent the same real burden upon the taxpayer as they did at the moment of assessment, and the receipt side of the budget would have been *pro tanto* increased. Any deficit due to this unequal effect would have been removed or diminished.[1]

It may be said, in general, that the attempt to levy direct taxes while currency changes are taking place is like a tailor

[1] Not only was the wholly unequal effect disastrous for the State and the primary cause of further inflation which aggravated the trouble, but it naturally destroyed the whole intention of the scheme of taxation of the rich. The "Dawes" Report ran as follows: "We have been unable to escape the conclusion that the wealthier classes of Germany have, in recent years, not been reached properly by the system of taxation in force, either to an extent which the taxation of the working classes would justify, or to an extent comparable with the burden upon the wealthier classes in other countries.

"It is, of course, common knowledge that, with a continually depreciating currency, many classes of business men tend to obtain as profit a larger share than is normal of the total produce of industry. Many of their expenses are in the nature of fixed charges. Moreover, generally speaking, paper-mark wages have not advanced as rapidly as paper-mark prices have increased, so that the share of the business proprietor in the total produce of industry, altogether apart from the special profits made by him on redeeming debentures or mortgages at nominal figures, has tended to be greater than is normal.

"Direct taxes, such as income tax, are necessarily assessed for completed periods, and during a time of rapidly rising prices the burden of any particular year, based on the profits of previous years, is small relatively to the profits of the year itself. Moreover, the process of return, assessment and appeal for such a tax, necessarily occupies further time, and by the date when substantive liability is fixed in paper marks its real burden is far less than was originally intended. Further delay in payment of that liability intensifies this effect. It was not until the inflation movement was well advanced in Germany that any serious effort was made to combat this evil. Although the rates of income tax according to the nominal scales rose to nearly 60 per cent. on the highest incomes, statistics of cases furnished to us by the German Government show that in effect, even in the year 1920, the burden of actual tax (measured in gold) on the higher incomes, instead of being 50 to 60 per cent., was only half those rates upon the income of the year (measured in gold). This was undoubtedly one of the primary causes of the budgetary difficulties of Germany, and the disparity was very much greater in the later periods. It can be said with confidence that the wealthier classes have escaped with far less than their proper share of the national burden, and we have put it as a matter for the serious consideration of the German Government whether they should not, facing even the admitted administrative difficulties, review the assessments of recent years in the case of these particular classes of taxpayer and re-assess their liability upon a gold basis."

As the paper mark was moving rapidly the whole time, the real burden of the tax became continually less and the expedient of coefficients was adopted far too late in the day to be of any use.

In the year 1923, the whole basis of direct taxation disappeared, and for 1924 there were no preceding year's profits which could be utilised as a basis of assessment.

The profits of *X* marks early in the year mean quite a different amount from *X* marks later in the year, so that, although the total amount of paper marks in the year might be the same in two businesses the real profits in the year were completely different.

measuring a growing boy for a suit when the growth is so rapid that by the time the suit is ready it is too small. Any attempt to measure movements of liability or wealth tend to resemble the measurement by a piece of elastic of distances between two boats moving in opposite directions.

When we have a stable currency the fluctuations of trade are about a practically fixed centre; they resemble a one-armed gas bracket in which the *loci* of possible points is limited and definable. But if we add to natural movements the artificial movement of currency changes, then our attempt to define the possible position of trade as valued at any moment is like dealing with a two-armed gas bracket where the *locus* may be *anywhere* within the whole double-radius circle.

It need not be thought that these difficulties are confined to fixed progressive scales for direct taxes. Considerable difficulty can also arise in the case of indirect taxes, although not of such a serious nature, and, generally speaking, systems of indirect taxation suit themselves more closely to changing conditions. But there are many types of customs duties of a specific character where a specific duty—intended to represent upon the average value in the class to which it applies a certain percentage—becomes ridiculous. Obviously a duty of 1*s*. on a class of articles averaging 10*s*. per pound, becomes of little use to the State when the average price is 100*s*. and the 1*s*. has only one-tenth of its previous purchasing power. The system of coefficients is therefore necessary, and, indeed, is a thoroughly recognised expedient, but in times of rapid change it tends to get out of date almost before it is applied.[1]

THE MOVEMENTS OF CAPITAL VALUES IN THEIR EFFECTS UPON INCOME TAXATION.

The ideas prevalent in Great Britain on the subject of taxation of capital gains have always been very different from those which find favour in the United States. This is

[1] The difficulties that arise in the case of indirect taxation, owing to the alteration in wages fixed on the cost-of-living basis, are omitted here, as they are dealt with on page 151.

possibly due to the natural difference between an old country and a rapidly progressive country where large fortunes are made, not so much by careful saving out of income, but on the realisation of assets which have rapidly developed in value. It is quite natural that where this kind of fortune is prevalent and there are relatively few losses there should be a popular demand for their inclusion in the idea of "ability to pay." But in a country where gains through increased values of securities are, to a very large extent, offset by losses made by others, the necessity for this kind of taxation, under the head of taxation of income, is far less apparent.

The British taxpayer rebels against any kind of capital gain coming within an annual tax upon income. There is not so much natural opposition to taxation of that class of gain which is due to *inherent* growth of value, such as we get with a growing forest or a stock of whisky where value increases by the effluxion of time. But a mere change in the values of some things in relation to others, and the application of a tax to an outward realisation of this change by a sale which does not equally apply when the gain is kept in hand, does not appeal to our sense of justice; neither does it appeal to our sense of fiscal expediency if it is necessary to allow for corresponding losses, and so get little or nothing for the Exchequer after all our trouble. How much more, then, should we doubt the propriety of taxing those changes in money values which are due to alterations in currency!

The history of income-tax principles in the United States during the last ten years is eloquent, not merely of the difficulties of taxing capital gains even upon a stable basis of values, but also of the extraordinary complications that arise when any such attempt is made over a period of widely differing money values.

I do not propose to enter upon a discussion of the various changes of law which have "accommodated" increases of rate with improvements in the taxpayer's status in relation to capital losses. Thus, losses were only allowed in 1916 equivalent to gains of a similar character, but in 1917, upon the great increase in rates, all restrictions on losses were removed, provided the losses were "realised." This led to people selling stocks to each other upon which each "realised" a loss, although they remained virtually in the same position as before the sale. But each had realised a "loss" which would cancel a large income-tax payment. The losses to the State were, of course, very great, and the economic effects of "taking losses" but not realising profits were such as to interfere with the normal developments of trade. In 1921 there were many changes of law. The capital gains were taxed at a limited rate of 12½ per cent. Generally speaking, the development has been entirely to the advantage of the taxpayer, and against the Government, and some of the results of the desire by the State to derive profit from these changes have been extraordinarily different from the original intentions. They are, perhaps, best brought out in what is known as the *Phellis* or *du Pont* Case, the "inwardness" of which is certainly worth following. In 1915 the E. I. du Pont de Nemours Powder Company of New Jersey passed over its assets to a Delaware company in return for debentures and stocks. It then gave to its common stockholders two Delaware shares for each share of the New Jersey company—*i.e.*, $60,000,000—and it retained, after this distribution, debentures of the Delaware company equal to the nominal value of its own common stock—$30,000,000.

At the time of this distribution the Delaware stock was worth $347·5 per share.

After a long period of litigation, the Supreme Court decided that this distribution was a dividend taxable in the hands of the stockholders of the New Jersey company. It has been stated that this made an additional taxable profit of $210,000,000. This amount was practically 5 per cent. of the total taxable income of all individuals for that year, so it was obviously not an unimportant decision.

In the first instance, the Court of Claims had said that the distribution was not income to the New Jersey stockholders, because the Delaware shares stood for the same property and business as those stockholders already possessed, but the Supreme Court supported this view only by a minority.

It has been said [1] that the third alternative, which really reflects the nature of the transaction, was not discussed—viz., that the stock of the new company represented what the old stock had *previously* represented, and that the old stock, which after the transaction represented only an equal amount of debentures of the new company, was the real dividend.

In substance, the position of the stockholder after the transaction was almost identically the position in which he would have been placed had the New Jersey company created $30,000,000 of debentures and issued them to common stockholders by way of dividend, or even if it had sold $30,000,000 of debentures at par and paid the cash to its stockholders. After the transaction the stock of the old company represented to the stockholder of the old, or New Jersey, company, something severed from the du Pont property and business which he could realise without reducing in any degree his proportionate interest in the general du Pont assets.

Over the period of six years during which this matter was being settled, nobody knew his liability within very large limits. If a shareholder had sold shares at $200 per share, he would, on the Government principle, have realised a deductible loss of a large sum. At the time of the decision the stock stood round about par, so the recipient of the dividend in 1915 was liable for tax in that year on the basis of $347·5, and on selling in 1921 he would have been entitled to claim a loss of $247·5. But in 1921 the normal rate of tax was eight times as high as in 1915, and the supertax, instead of running from 1 to 6 per cent., ran from 1 to 65 per cent. In 1915 the wealthy taxpayer would have borne a moderate amount of tax, and in 1921 would have had a set-off in duty nine or ten times as great! It is certainly clear that the Government, by winning this case, must have incurred an enormous loss; in the words of one of the " victims " of the

[1] Mr. G. O. May, *Harvard Business Review*, October, 1922.

decision, "they bought an asset only to find it was a liability!"

It is possible, of course, that such a case would occur upon fluctuating industrial fortunes in a particular concern without changes in general values, but it is much more likely to be common in the case of violent deflation, and it indicates the impossibility of foretelling what the result of the taxation of capital gains would be in times of rapidly altering money values.

The Position of Capital Variations in Excess Profits Duty.

Some of the anomalies to which reference has been made came out in a very marked fashion during the war in connection with excess profits duty. The underlying assumption was, of course, that each year during the war would exhibit changes in wealth as compared with pre-war conditions, and that those who were "better off" were able to bear a special burden.

At the inception of the tax people really had in mind the idea of being "better off" in its real sense and not merely in a nominal monetary sense covering an actual inferiority of real wealth. With the rapid rise in currency values, however, this pure intention was negatived. If a pre-war standard was £10,000 and the profits of one of the war years were £15,000, and this £15,000, reduced to the basis of pre-war prices, was £7,500, the taxpayer had suffered a decrease in real income of 25 per cent. But it was charged as though he had an improvement of 50 per cent., and if the tax were 60 per cent., he paid £3,000. This reduced his money income to £12,000 with a real value of £6,000, so that, instead of having 75 per cent. of his pre-war wealth, he was reduced to 60 per cent.

The following indicates the rises each year, against a pre-war standard of £100,000, which would have been required in profits to give the pre-war real equivalent. It shows broadly the tax that would be deducted and the real position after payment of the tax.

Year.	Profits.	Profits after Payment of Duty.	Net Profits reduced to pre-war Purchasing Power.
	£	£	£
1914	100,000		
1915	127,000	113,500	89,400
1916	160,000	124,000	77,100
1917	206,000	121,200	58,800
1918	226,000	125,200	55,400
1919	300,000	220,000	73,300
5 years aggregate ..	1,019,000	703,900	354,000

It will be seen that the "real" income was reduced by the duty from the pre-war average of £100,000 to about £71,000 per annum.

Obviously excess profits could arise through:

(*a*) An increase in the volume of trade at pre-war prices.

(*b*) The maintenance of the pre-war volume at increased prices; or

(*c*) A combination of these two.

In quite a large number of cases excess profits must have been charged where, measured by any objective test, there was a deficiency compared with the pre-war standard.

Further difficulties were involved owing to the change of values during the war itself. There was an intention that, taking one period with another, deficiencies should be set against excesses so far as duty was concerned. Many were the attempts made in legislation to get the net duty charged upon the net excess over all the periods on a consistent basis, but, owing to the changes of rate, this process was very difficult, and the original plan of setting off duty paid and duty repayable was maintained. In any case the attempt could not have been successful in establishing a consistent total *net* or real profit.

An excess of £10,000 in 1915 and a deficiency of £4,000 in 1919 would have represented a net excess of £6,000, but the real value of this excess was quite different from an excess of £6,000 where the deficiency of £4,000 occurred in 1915, and the excess of £10,000 in 1919. The rapid change in values, and, indeed, the rapid slump in the duty in the year 1920, made the net result and the net charge for the whole period of seven years for one case compared with another quite indefensible in theory, and it cannot be said that the duty did any more than the roughest justice to fiscal principles even under the exigencies of war.

Take, again, the provisions for dealing with adjustments of capital. It was desired to set against the total excess of the whole period any depreciation in value of assets due to the war. A ship worth £100,000 at the beginning might have lost half its real value and have been worth £50,000 at the end, but owing to the high prices and currency inflation, the real value was obscured by a new money value of £100,000, so that no depreciation for the purposes of the duty would result. If the duty had been brought to an end in December, 1919, this particular anomaly would have been very marked, but as its last year, 1920, included a rapid deflation of prices, the difficulty was reduced in gravity and importance; probably over the whole area in connection with this class of depreciation, substantial justice was done, despite individual anomalies. Taken as a whole, however, the tax illustrated every conceivable difficulty that a changing money standard can bring about in fiscal burdens.

I have now perhaps sufficiently illustrated the difficulties that are introduced into a fiscal system by a variable money standard, and added one more plea for that stability which we all look forward to so wistfully and doubtfully, when honest men will come into their own, and what they have will hold. A fortune made by money variations is a reproach to the standing and intelligence of civilisation. Quesnay said:

> Qu'on n'espère de ressources pour les besoins extraordinaires d'un État que de la prospérité de la nation et non du crédit des financiers ; car les fortunes pécuniaires sont des richesses clandestines qui ne connaissent ni Roi ni patrie.

Perhaps, however, these ups and downs will serve one good purpose at least and save our minds from sluggish ease and economics from becoming a branch of archæology. Sir Thomas Browne had it:

> Attend with patience the uncertainty of things and what lieth yet unexerted in the chaos of futurity. The uncertainty and ignorance of things to come makes the world new unto us by unexpected emergencies; whereby we pass not our days in the trite road of affairs, affording no novity; for the novelising spirit of man lives by variety and the new faces of things.

IX.

DOUBLE TAXATION AND THE FREEDOM OF INTERNATIONAL INVESTMENT.

IX.

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THE successful rehabilitation of the world, and especially of European States, demands a free flow of investment capital from the stronger members to those quarters where the native supply is inadequate. The universal need of heavy revenue and the consequent high taxation are throwing into prominence one of the greatest hindrances to that freedom in the existence of a prohibitive double taxation. From the same fundamental causes the greatest weight of taxation, the greatest need of real new capital, and the most meagre native supplies tend to be found together in the same places and to render the hope of recovery desperate.

The history of the development of ideas upon this matter divides itself clearly into three stages :

1. The principles prevalent and the ideas dominant to the end of 1922.
2. The report of the Committee appointed by the League of Nations Finance Committee made in March, 1923.
3. The proceedings subsequent to March, 1923.

These three stages are dealt with separately below.

I.—THE POSITION IN 1922.[1]

There had been no systematic examination of the problem except as a grievance of individuals, other than a note appended to the British memoranda for the League of Nations on "The Effect of Double Taxation upon the Placing of Investments Abroad," prepared for and circulated by Sir Basil Blackett. But for the official anonymity which cloaks this document it would probably have received far wider attention than has been given to it as the only discus-

[1] Reprinted from the *Manchester Guardian Commercial Supplement*, July, 1922.

sion and analysis available on the pressing problem of the dynamic effect of double taxation on the flow of capital, and it cannot be too closely studied by those who would get beyond the superficial aspects of the matter.[1]

Widespread interest was being shown in the subject. First, in September, 1921, the League of Nations Finance Committee had appointed a special committee which was engaged upon it.

Secondly, the International Chamber of Commerce, in their Congress in London in June, 1921, received a report from a Select Committee which was set up as a result of a resolution, in June, 1920, that the Government ought promptly to agree upon measures which should ensure that individuals or companies of any one country should not be liable to more than one tax on the same income. In this resolution they begged the question forthwith " that the country to which the taxpayer belonged has the right to claim the difference between the tax paid and the home tax." In the preliminaries of the London Congress the ground of argument was somewhat shifted, and the resolution referred *not* to hardships on individuals but to the heavy burden on international trade which the existing system of double taxation involved, and the necessity for alleviating it.

The principles enunciated at the Congress were:

(*a*) With regard to incomes earned and collected within the country, all taxpayers, both citizens and foreigners, whether resident in the country or not, should be treated alike—*i.e.*, there should be no rebate in respect of income going *out* of the country.

(*b*) If income earned and collected abroad cannot be entirely free from liability, it should be the object of a considerable rebate in consideration of the tax on such income already levied in the country of origin.

Thirdly, l'Institute Intermédiaire International, at the Hague, in 1919 began a study of the problem, and they have collected from the chief countries statements by experts

[1] The credit for this piece of pioneer analysis belongs to Mr. W. H. Coates, LL.B., B.Sc. (Director of Statistics and Intelligence, Inland Revenue Department).

showing the existing state of the law and the principles adopted by the several Governments. So far as any general ideas now emerge, they may be said to be upon the same lines as those of the International Chamber of Commerce.

In the fourth place, there was a conference at Rome. The new States succeeding to the Austro-Hungarian territory found themselves with a new confusion arising from the fact that the subdivision of an area hitherto treated as one fiscal unit means inevitably taxation of the individual both where he receives a particular item of income and also taxation of that item where it arises, if the two are in different areas. Formerly the larger area embraced both places, and double taxation did not arise, but now the greater the subdivision of area naturally the more the instances where two jurisdictions are concerned. The new States met in conference in Rome, June, 1921, and agreed, *inter alia*, upon the following principles:

(*a*) Taxes on real property belong to the State where the property is situated.

(*b*) For State and provincial and local and similar securities and for shares in limited companies, banking, etc., the tax belongs to the country of origin.

(*c*) This rule applies also to savings banks, deposit interest and current account interest, but interest due from branches of banks and such institutions is to be liable for tax to the places where the branches are situated.

(*d*) Income from personal labour and professions is, of course, taxable where the duties are performed, but pensions and salaries paid by governmental and State authorities are taxable by the State responsible for payment.

(*e*) Business profits are taxable where the headquarters of the business is situated, except that branch establishments must pay to the State where they are situated on the profits made there.

Fifthly, during the proceedings of the Economic Commission at Geneva—the fundamental importance of which has perhaps hardly yet sunk in the public mind—it was agreed that "national" treatment should be the rule in fiscal matters. It was laid down that the taxes should be strictly limited to that part of the capital effectively engaged within the country in which they are levied and to these operations only which are undertaken in that country. With very minor exceptions this seems to have been the attitude of mind of all the countries concerned.

Two main lessons were to be derived from a consideration of the foregoing:

First, the activity being displayed in so many different quarters indicates that a very real problem exists for solution. The nature of that problem is ill-defined, and only becomes clear upon careful examination. The incentive to inquiry probably arises, in the first place, from the position of those investors who, living in one country, have *already* made investments in another country prior to the imposition of recent high taxation, and find themselves with a net yield of income from their investments, after both the countries have taken toll of it, far below what they had anticipated. These, indeed, feel, rightly, that they are suffering the "burden" of double taxation. But once these sufferers have raised the problem it is later on taken as one affecting not merely the past, but especially the future, interfering with the dynamics of foreign investment.

The duplication of taxation is then said to be "hindering" the free movement of capital between countries, and preventing liquid resources flowing from the places where they are most abundant to the places which need them most. The investor in one country, knowing the burden in his own land and seeing the high taxation that will have to be paid upon the yield of any investment which he may make abroad, will invest abroad only on those special occasions where the yield is so high as to leave him with a net return equal to a corresponding investment in his own land.

But there is here some confusion of terms which leads later to confusion of thought. So far as concerns taxation in existence at the time when an investment is made, the "burden" of double taxation is a misnomer. It can only be rightly called a "burden" if a hindrance to free action is a burden. This is rather a "barrier," and the appearance of double taxation is, in fact, for the most part negatived by the ordinary operation of economic forces.

The distinction was recognised in the terms of reference which the League of Nations had given to its Committee of Experts.

The second lesson that immediately emerged from the great activity which was being displayed on this subject was the extraordinary predominance of the idea that "origin" is the primary title for taxation. It seems to be instinctively assumed, whenever a general principle has to be laid down, that "origin" is of the first importance and "residence" is of secondary significance. That is, if the origin and source of income is within a country's borders, that country has the *prime* right of taxation on that income, although the income goes to some person abroad. There are a few modifications, but this is a main instinctive principle. From this flows the consequence that when double taxation is involved it is the country of residence rather than the country of origin which should give way and mitigate its claims. There are probably four sources from which, speaking historically, this preference comes:

(*a*) Nearly all modern taxation in its earlier developments has proceeded by presumptive signs, and people have been taxed by their use ot certain commodities, or by reference to commodities, as presumptive evidence of their total resources, or on account of ease of administration. This is at the back of the common instinct to regard taxes as paid by "things" rather than by persons.

(*b*) The "nationality" instinct to hold that no boon arising within the nation's borders should accrue to the benefit of persons abroad without toll being taken.

(*c*) The administrative difficulties of taxing individuals otherwise than through separate categories of wealth.

If nations were not prevented by historical evolution and administrative difficulties, as well as by the psychological advantages of indirect taxation, they might have realised that taxes are paid by people; the "origin" ideal would be a far less intuitive one, and, if persons were regarded as the object of taxes, then nations would look upon the inhabitants living within their borders as the true subjects of taxation according to their several resources, and they would make them pay according to that ability towards the needs of the State.

(*d*) At the back of the "origin" principle is also the "benefit" theory of taxation—viz., that all activities and sources of revenue receiving protection from the laws and Government of the State should contribute thereto, which is consistent with the idea that a *favour* is being conferred upon the foreigner for looking after his money and giving him a return upon it.

The memorandum to which reference has been made suggests that in normal conditions it is the country of origin alone—*i.e.*, the country requiring the money from abroad—that has any interest in mitigating the severity of the burden. *Primâ facie*, of course, the country where the investor resides may also find it to its interest to share in the cost of the relief, especially when capital is flowing from a highly industrialised country to an agricultural or less-developed one. This belief would appear to rest upon the ultimate advantage of new markets for export trade and the inflow of new supplies of food. But this is a national outlook, whereas investment is individual, and capital will flow out from the industrial community only so far as the terms of the loan are remunerative to the investors concerned by the higher yield, notwithstanding the taxation abroad. Nowhere have we seen any indication of a desire on the part of an industrial country to subsidise foreign investment—the flow of capital from its borders—by remitting taxation, and charging taxpayers, other than the foreign investor, more than they would otherwise have claimed in order to encourage a potential foreign investor to become an actual one.

The prevalence of the "origin" idea leads quite directly to the consequence that those countries which are investing countries—*i.e.*, "creditor on balance"—should bear the main cost of relieving double taxation, and that countries which are borrowing countries and "debtors on balance" should contribute nothing to that cost.

In general, modern States now appear to hold instinctively to this principle in theory and carry it out in practice also, whenever the foreigner has already made an investment within their borders, and is, therefore, helpless. But they drop the principle like a hot brick in practice as soon as the vital question of new investment arises. In vain is the net spread in the sight of any bird. We have seen, during the recent past, loans sought in the British money market by borrowers abroad—France, Brazil, and recently Czecho-Slovakia are cases in point. They have issued securities yielding fixed rates of return, which are all marked by one common feature—*i.e.*, the exemption of the promised yield from all taxation, present or future, by the borrowing country—*i.e.*, the abandonment of the "origin" principle. Even the United Kingdom, when pressed for money during the war, was raising all it could abroad, and offered its Government securities to persons not resident in the United Kingdom free of all internal taxation.

These practical examples support the general principle emerging from the League of Nations' memorandum—viz., that the investor thrusts back on the borrowing country the burden of that country's taxation. It also throws considerable doubt upon the validity of the claim of the principle of "origin" to be primary and not secondary—that is, to be the last to give way when a sacrifice of revenue has to be made.

If it were not administratively chaotic, one might suggest that there should be one rule for taxation existing when a new investment is made and another for taxation afterwards imposed. There may be some who would admit that it is too much to expect Great Britain to give up revenue from sources from which it has hitherto continuously obtained revenue *pari passu* with the imposition of heavier taxation abroad on those same sources, but who would contend there is no such marked inequity if a country like Great Britain undertakes to restrict its taxation on income from *future* foreign investment to a merely negligible amount? It is clear, however, that so long as private investment is the main source from which new capital can be derived, and so long as the rehabilitation of the stricken countries is a matter of urgent concern to themselves, so long will the principles that they have enunciated, claiming "origin" as the primary basis of taxation, be inconsistent with the trend of individualistic economic forces. If the day comes when a competitive money market has not to satisfy the individual investor, and when the country with the resources looks eagerly to the superior investing possibilities of those fields at present so doubtful, then possibly the trend of economic forces will be reversed, and it will be the country exporting the capital which will be prepared to carry all the burdens of fiscal relief. At present a rigid adherence to the principle indicated seems to be a real obstacle in the way of the free flow of capital to those countries of Europe most in need of it, unless such countries as Great Britain are prepared to subsidise investment abroad by drawing a smaller revenue from their inhabitants than they would do if investment were made at home, or rather, by taxing home investment more heavily to make good the deficiency.

II.—The Report of the Committee on Double Taxation, March, 1923.[1]

Many of the considerations referred to above found a place in this Report, and the analysis of the economic consequences of international double taxation followed logically upon the lines begun in the "Note on the Effect of Double Taxation." It elaborated various limitations to the doctrine that the new non-resident investor could not bear the tax, and concluded:

1. That in most cases the imposition of a new or higher tax penalises the existing non-resident investor; and

2. That, subject to certain limitations, it prevents non-residents from making a new investment unless the terms offered by the borrowing country are such as really to throw back the burden of the tax upon the taxing country.

It sets up "a tendency for new investment to be restricted to capital available within the borders of the

[1] Submitted to the Financial Committee of the League of Nations by Professors Bruins, Einaudi, Seligman, and Sir Josiah Stamp, April 5th, 1923.

country itself. It acts like a tariff for concentrating manufacture within the country and restricting international intercourse. It sets up a tendency for old investments to change ownership from foreigners to home investors, and makes the country still more self-contained.

The second part elaborates, on theoretical lines, the general principles affecting international competence in taxation, as a preliminary to the consideration of practical methods of avoiding double taxation.

In the third part we are given the actual suggestions for dealing with the problem. On a survey of the whole field of taxation, it was recognised how completely the Governments were dominated by the desire to tax the foreigner; that origin was regarded as of first importance, and residence as of second importance. However, as regards income taxation, the Report was emphatic in basing its conclusion (that the principle of residence is supreme) both on general economic theory and on economic effects.

The four alternatives were broadly stated as follows:

1. A country might deduct from the tax due from its residents any tax paid by them on their income from abroad (analogous to the United States practice in the case of its own citizens). This throws the whole burden of increased taxation in debtor countries upon the creditor country, and is opposed to the general practice observed by foreign Governments when issuing their loans. If this course were followed, Governments need no longer make provision for making the loans free of tax to non-resident investors, knowing that it will fall upon the exchequer of the creditor country. It is to be doubted whether such creditor countries as the United States, Great Britain and the Netherlands, having regard to their interests abroad, would ever agree permanently to put their exchequers at the mercy of all the unknown increases of taxation of foreign Governments. This may be called *the method of deduction for income from abroad.*

2. The extreme converse—viz., that the country of origin should exempt all non-residents from taxation imposed on income drawn from sources within its borders—recognises the theoretical fact that the country wanting the money cannot

successfully "tax the foreigner"; it can only shut him out. It would have the effect of increasing the flow of capital from abroad and the development of less-favoured regions. This may be called *the method of exemption for income going abroad.*

3. It may be possible by convention to divide specific taxes so that a portion should be borne by the country of origin and the remainder by the country of residence—*e.g.*, a "Moranian" having an investment in England and being liable to 5*s*. in the £1 thereon might recover 2*s*. 6*d*. from the British Government, and also in his own country be charged only half the normal rate of tax in relation thereto. This is an attempt to recognise both principles and to spread the burden upon the two Governments. It would leave in an unsatisfactory position issues of State loans, and is open to many of the objections, though not to the same extent, as those raised to the first proposal. This may be called *the method of division of the tax.*

4. By convention, it might be determined to attach origin taxation specifically and wholly to particular classes of investments or embodiments of wealth, such as rents of land and of houses and mortgages on real property, but to exempt the non-resident in respect of income derived from business securities. The country of residence would allow the whole of the foreign tax as a deduction from its income tax on the resident in respect of such sources of income, but would charge other sources in full. The country of origin would retain its specific origin taxes in full. It would be necessary to give the country of residence complete power of charging all sources except for certain specified exemptions, so that the scope of its liability to remit the tax would be easily determined, and the investor, from his total income-tax demands, would be able to deduct certain specified taxes on any real property he might have. It might be desirable to impose some limit upon the power of the country of origin to levy in future specially heavy specific origin taxes, which would unduly deplete the exchequer of the country of residence. This may be called *the method of classification and assignment of sources.*

After consideration of these alternatives, the Report concluded:

1. On the subject of income taxation in its developed form, the reciprocal exemption of the non-resident under method 2 is the most desirable practical method of avoiding the evils of double taxation, and should be adopted wherever countries feel in a position to do so.

2. Where method 2 is repugnant, owing to a reluctance to abandon the principle of origin, method 4, as modified by method 3, may be the subject of mutual conventions; but even then it is best carried out by an administrative system similar to method 2, supplemented by a collective settlement on agreed lines between the two Governments.

3. Where countries desire method 4, but do not care to have it carried out by combining method 2 with such an overhead Government settlement, they must make the best arrangement they can under method 4, perhaps modified by method 3. But we hold out no hopes of this proving to be a smooth and practicable arrangement. It can be only approximate and not an instrument of that degree of sensitiveness and accuracy which developed communities expect.

Looking forward to the future, the influence of example by others and the spirit encouraged by the operations of the League of Nations indicate the possibility of a development away from localised ideas and from the earlier stages of economic thought typified by strict adherence to the principle of origin. Moreover, as semi-developed countries become more industrialised, with the resulting attenuation of the distinctions between debtor and creditor countries, the principle of personal faculty at the place of residence will become more widely understood and appreciated, and the disparity between the two principles will become less obvious, so that we may look forward to an ultimate development of national ideas on uniform lines toward method 2, if not as a more logical and theoretically defensible economic view of the principles of income taxation, at least as the most practicable solution of the difficulties of double taxation.

It may be said that in the public reviews of the Report, despite criticism in detail, none of the main principles were seriously affected, and the conclusions formed a distinct turning-point in the consideration given by the interested authorities to the whole question.[1]

III.—Proceedings Subsequent to March, 1923.

The International Chamber of Commerce.

At the time when this Report was being written (March, 1923) the International Chamber of Commerce were having another congress in Rome, and amongst the resolutions they record as having been taken in December, 1922, is a recommendation to the several States as to the main principle to be adopted to alleviate the worst consequences of double taxation. In this recommendation the leading principle is that from the total tax due from a resident, an allowance should be given in respect of taxation imposed upon income from abroad in the country from which the income was received, this allowance to be limited by the country of domicile to a proportion which should not be less than one-half the taxes from income originating within its own borders, and whatever might be the maximum adopted for this deduction, the level of progressive rate applied in the country of domicile was to remain that applicable to the total income.

The Committee of the International Chamber on Double Taxation met in Paris in November, 1923, "to examine afresh the measures necessary and desirable to counteract the deplorable consequences of double taxation." Its first resolution exhibits an extraordinary change of standpoint or opinion :

> (1) The Committee consider that the best means of avoiding international double taxation is to recognise the principle that *residence* should constitute the sole basis of taxes on income. They recommend this principle to the attention of Governments for the guidance of the different Legislatures of the world.

They went on to say that the country of origin should confine itself to taxing incomes accrued within its territory

[1] Reasoned reviews will be found in the *Economic Journal*, by Mr. W. B. Cowcher, B.Litt., and the *Statistical Journal*, by Mr. W. H. Coates, LL.B., B.Sc.

by a tax at the source, and that this should be limited to income from real property and in as few cases as possible.

The resolutions of December, 1922, were said to raise "certain objections of a practical nature."

The Committee also took note of the resolution adopted by the Sea Transport Committee of the 8th November, and expressed the hope that Governments would grant reciprocal exemption from taxation to shipping companies not resident or domiciled within their territory.

The International Chamber in March, 1924, confirmed resolutions adopted by this Committee as follows:

1. Since the simultaneous application, in different States, of the principle of the residence of the taxpayer and that of the origin of the income necessarily leads to double taxation, the Committee consider that the best means of avoiding this consequence would be to accept the residence as the basis of tax on income.

They recognise, however, that the application of this principle could not be expected completely to preclude all taxation according to its origin of income derived from landed property or even from commercial or industrial enterprises.

2. In all cases, without exception, where taxation according to origin cannot be avoided, the Committee consider that a distinction must be made between taxes affecting income at its origin and those which affect the taxpayer by reason of his residence and are charged on his entire income. They consider it essential that the country of origin should confine itself to taxing incomes accrued within its territory by a tax at the source, at the same time strictly limiting this taxation.

It follows from the above that the country of origin is not entitled to require from the non-resident taxpayer declarations covering any composite part of his income, no matter what its origin may be.

3. The Committee consider that, in the cases referred to in Article 2, the State of residence should grant to the taxpayer whose income is taxed in the country of origin, relief on account of the taxes paid to the foreign State.

The Italian International Committee recorded that they could not adhere to the first fundamental principle—viz., "the acceptance of residence as a basis," as it was desired to divide income up into categories for the two principles.

The Attitude of the Several Governments.

After receiving the Report from the economists, the League of Nations in June, 1923, referred the matter to technical experts of the several Governments (Belgium, France, Great Britain, Holland, Italy, Switzerland and Czecho-Slovakia), who would have power to speak for them.

These experts considered that their report, in conjunction with that of the four economists, would form the basis of discussions by the Financial Committee. They agreed:

1. That the general income tax should be collected by the State of domicile.

2. That this principle might be modified in certain exceptional cases—that is to say, the State in which such income originates would have a right to impose a general tax on income to which such exceptions apply.

3. Income under immovable property should be included under income to which such exceptions apply.

4. Where exception is made, the State of domicile would have the right, in the case of a graduated scale, to charge the rate in force for the taxpayer's total income. There would be a deduction from the general tax on total income, a sum which, according to convention, would be (*a*) either the tax calculated according to the State's own scale, and charged exclusively on income produced in the other countries—each of the latter to be taken separately—or, the tax actually paid abroad on income earned abroad, on condition that this sum does not exceed (*a*) above.

It will be seen from the above that some considerable progress was made at this stage towards the recognition of residence as the chief principle of taxation.

In October, 1923, the Committee of Experts again met, and, doubtless in consequence of difficulties with their home exchequers, began to show signs of breaking away from the provisional agreement already reached. Dealing with the taxation of public funds and of shares or bonds issued by companies, they recalled that the original Rome Convention had stated that the tax should be levied in the country of origin, and that the economists had endorsed the principle that it was the country of residence of the creditor which should levy the tax. They said their difficulty was to lay down a hard and fast rule having regard to, *inter alia*, the difference between the financial and commercial policy of States—*i.e.*, the benefit derived by a State—according to circumstances, by requesting or refusing offers of pecuniary assistance from foreign capitalists, *and the inexorable obligation of balancing the budget by means of an appropriate revenue system*. The disturbed state of the countries generally brought them to the view that the most which could be done would be by bilateral agreements which would balance widely opposed considerations, and so correct the absolute character of a general principle. They had a pious hope that these bilateral agreements would be a step towards that uniformity which is still only an ideal.

The official attitude of Belgium has recently been made clear. It is unequivocally the principle of the "division of foreign income between the producing and consuming country." In accordance with Belgian theories of double taxation, consideration is given to Belgian companies operating outside Belgium, with a 50 per cent. reduction of tax and some exemptions from local taxation.

The Special Case of Shipping.

Reference should be made to a series of negotiations carried on separately, in which the same principle is involved in relation to shipping. These had their chief objective in the avoidance of double taxation between the United States and Great Britain, and culminated in a section in the Finance Act, 1923, in which general powers were given to secure relief. The nature of the relief, and the principles involved, are not stated in this section, but it is understood that the arrangements contemplated will be to give effect to a principle analogous to the "reciprocal exemption of the non-resident."

It will be seen, therefore, that in the course of the past four years considerable advance has been made in the elucidation of theoretical principles, and that, so far as commerce is concerned, its representatives have turned completely round in their proposals for a general solution. Resistance to drastic reform comes mainly from interested debtor Governments, and it is probable that only the slow development of bilateral conventions will bring about any general method or solution for dealing with the problem.

X.

THE RELATION BETWEEN DIRECT AND INDIRECT TAXATION.

X.

THE RELATION BETWEEN DIRECT AND INDIRECT TAXATION.[1]

"To tax and to please, no more than to love and to be wise, is not given to men."—BURKE: "On American Taxation."

I SUPPOSE that the bare title of my remarks will convey very different meanings to different persons. Many will think that it refers to the relative proportions of the total revenue which is raised in two broadly different ways, while others will expect to hear rather of the effects that one class of taxation may have upon the other. The latter aspect is, of course, the more modern and the more subtle, and, as it belongs rather to the class-room for advanced students of the theory of incidence than to the platform for a general audience, I do not propose to enter upon it now. Up to a few years ago the title would have conveyed but one meaning, for the proportions in which the total national revenue was raised by those two different methods was a constant subject of discussion. After every Budget speech criticisms were lodged against the Chancellor either that he was increasing the burden of direct at the expense of indirect, or in the contrary sense, according to the political leanings of the critics. People supposed for some mysterious reason that it was the Chancellor's duty to hold an even balance between the two different classes, so the heavy monthly reviews in reporting on it were able to look over a period of years and see a growing tendency for an increase of one particular class, commenting as though it were an offence against some absolute or inherent law of Nature. "Holding the balance even" was a kind of financial shibboleth, though why it should ever

[1] A lecture given to the Chartered Institute of Secretaries at Gresham College, April 9th, 1923.

have been supposed that the ideal division was an equal one, rather than, say, two-thirds for one class and one-third for the other, or any similar division, I cannot imagine. You will remember the oft-quoted remark from Gladstone's Budget speech of 1861, when he referred to direct and indirect taxes as being like two attractive sisters, each with an ample fortune, and that between them he had to be " perfectly impartial," meaning that it was not only allowable, but even an act of duty on his part, to pay his addresses to them both. I am afraid the simile breaks down rather early, for the consequences of paying addresses to two ladies with a view of sharing the ample fortune of both are, at any rate outside of Salt Lake City, a little complicated. Starting from what we may regard as perhaps the historical axiom of a kind of equal division, writers are able to criticise the development of new taxation by pointing out that increased indirect taxation means further taxation of the poor, or that increased direct taxation means further taxation of the rich and drawing their particular moral or lesson accordingly. With the old income tax exemption limit of £160, above which only a few wage-earners were to be found in receipt of regular income liable to income tax, it was broadly true that the wage-earning classes, or nine-tenths of the population, were below the limit of direct taxation, and had to be reached by indirect taxes. The remainder, or one-tenth, were above that limit, and included small shopkeepers and the better-paid clerical classes. To-day we think of these matters rather easily in terms of approved progression of taxes upon different amounts of wealth, but we must put ourselves back into the position when progressive taxation was hardly recognised, where it was greeted with pious horror by all right thinking persons, and where the people liable to direct taxes expected to be taxed practically on a proportional basis. To-day we do not feel that we have made any approach to a proper grip of the subject until we have reduced all these taxes as far as possible to a single burden, and contrasted that burden with the annual resources of the recipient and found, as between a wage-earner and a rich man, a true progressive system.

The Influence of Progression.

Opinions, of course, still differ as to the rate of graduation or the steepness of charge upon the richer classes, but opinions do not now differ that the total taxation of a man with £10,000 ought to be progressively more than that of a man with £1,000, and, again, that the tax on the £1,000 man ought to be progressively more than on a man with £100, so far as taxation is referable to total resources. How much greater it ought to be is still only a matter of opinion, and some of the early and mid-Victorian comments on the impossibility of determining this are as true to-day as they were forcible then.

There is an important qualification of this purely progressive idea to which I will make reference later, but, generally speaking, it is the common idea to-day, widely accepted for taxation purposes, that taxation according to ability to pay refers to *total income*, and should be progressively based thereon. Of course it does not necessarily follow that direct taxes must be paid by the rich and indirect taxes by the poor, though, broadly, that is what actually happens. It would be possible to have indirect taxes on articles of luxury consumed only by the rich, and it would be possible to have a direct tax which should fall more heavily upon the poor man than the rich—a kind of poll-tax. It is possible for the proportion raised by direct taxation to increase steadily, and for this to arise from totally different causes. A cause to which it is generally assigned is that it is desired to tax the wealthier classes more heavily than hitherto, compared with the poorer classes, but a second reason was just as good. If we survey the history of taxation over the world in general, we can see that as nations become stronger in their administrative power, and as their ideas of taxation develop, so they employ the more subtle and delicate instruments of direct taxation, the effects of which are better understood and more under control, and as their ideas develop they get away from their primitive economic notions of "taxing things." People are only now waking up, looking over the world in general, to the fact that though taxes may be put upon things and apparently paid by things, they are actually paid by persons, and are ultimately referable as burdens on a person's total resources. It is surprising how backward the States are throughout the world in considering that point. If they can only succeed in getting a tax paid by reference to a *thing*, they think they have done something which makes a burden easier to bear than if they send a person a demand note based upon his means as a whole.

The Real Difference between Direct and Indirect Taxation.

Perhaps we should devote a little time to considering what the real difference between direct and indirect taxes was. As a matter of fact this difference has shifted from time to time as a question of definition, has not always been the same, and has never been quite clear.

A direct tax is generally reckoned to be one that is paid by the person who is intended to bear it, or by his immediate agent—*i.e.*, the income tax or death duties. The landlords' property tax is no exception, for that is a specific deduction from rent, which does not alter the amount of the rent but merely carries through the payment by way of agency. But an indirect tax, on the other hand, is one which is *intended* to be shifted in the price or by the alteration of the " terms of a bargain," as it has been put, so that it falls upon the ultimate user or consumer of the article, and not upon the first payer. Such duties, of course, include Customs and Excise duties and similar taxes. Broadly speaking, taxes that can be modified in amount according to a person's total resources or general position, and made larger for different people, are direct taxes. But taxes which are impersonal, that have no relation to the wealth of the consumer or recipient, are indirect. So in indirect taxes the taxpayer is not permanently the tax-bearer, or he is not intended to be, and the shifting of the burden to another is expected and desired and perhaps even prescribed. So the distinction is partly economic and partly administrative. Writers were uncertain for a little time where to put death duties, because such taxes seemed not to come from any definite person, but to be " between the living and the dead." Generally speaking, however, they are now classified as direct taxes, and, indeed, they vary with the fortunes of individuals, and the individual often makes such a provision for them during his lifetime as amounts to an extra income tax. When these taxes have to be assimilated to others and aggregated with others they are nearly always dealt with in that form.

The Proportions in Past Years.

For the purpose of this present discussion, no closer definition is necessary. Mill's definition of a direct tax was a tax which is demanded from the very person who is intended or desired to pay it; indirect are those which are demanded from one person in the expectation and the intention that he should indemnify himself at the expense of another, such as Excise or Customs. Certain stamp duties, such as those on insurance, bills, notes and drafts, all of which are taxes on income generally, stamps on deeds, etc., are often classed as direct, Excise and Customs duties being the only taxes constantly included as indirect. Poor rate, being a local rate, is not generally included in these. One authority who included stamps with direct taxation gave the proportion in 1840 of indirect taxation as 73 per cent.; in 1870, 61 per cent.; in 1880, 60 per cent.; in 1895, 62 per cent., and in 1906, 50 per cent. It will be seen, therefore, for how long a period it hovered round just above half of the total amount. Professor Seligman, however, includes stamps with indirect taxes, and this, of course, throws out the proportion. In 1895, for example, 67 per cent.; in 1903, 58 per cent.; in 1908, 60 per cent. If stamps are changed over, these three percentages are altered from 67 to 60 per cent., 58 to 53, and from 60 to 54. Each writer chooses his own method of division, and follows it through consistently in order to show the changes. But obviously one could choose such a division as would throw up the contrast in a way to put into greatest relief what one was condemning or advocating.

The Treasury classification included under direct taxation Excise licences and railway passenger duty and house duty. On this basis it will be found that the proportion of indirect taxation was 56 to 55 per cent. from 1887 to 1894. The Harcourt Budget made a definite break, and it ranged around 52 per cent. till 1899. In 1900 it was 50½ per cent., and with the higher income taxation for the Boer War sank to 47½ per cent. From 1903 to 1905 it got back to 50, and with the advent of the new Liberal Government in 1906, fell again to 48 and 47 per cent. The Lloyd George Budget of 1909–10 made a new break, and it fell to 43·6 per cent., and then to 42·4 in 1912–13.

The conditions during the war were, of course, exceptional, as so much revenue was raised through the excess profits duty, and people were not fully convinced that the excess profits duty was not an indirect tax. Personally, I think there is no doubt whatever that it was a direct tax. But if you take the year just finished the estimate of revenue gave a percentage of indirect taxation just over 41 per cent. if stamps were included, and just under 40 per cent. if they were excluded. So you will see that there has been a very material movement of late years into much heavier direct taxation which ever way you like to look at it. Now is this a thing to be praised or blamed? Is it contended that we ought to deplore it, or is it something that we should regard as being in the right direction? Much must depend, of course, upon your political attitude of mind, and what you think about the heavier taxation of the rich, not merely from the point of view of justice, but from the point of view of important effects of indirect taxes collected from the community.

Until the repeal of the Corn Laws, and the time when the income tax was imposed as a temporary measure to bridge the gap of revenue, the British revenue was almost exclusively derived from indirect taxes, and it was from that date, with increasing rates from the middle of the century, that increased reliance has been placed upon direct taxation. As the income tax administration improved and its yield increased, it became regarded as a permanent engine of finance, and then later on in the nineties the death duties were remodelled and graduation began, so that they also were playing a distinctly important part.

The Modern Trend Towards Direct Taxation.

In 1889, Mr. Goschen was struck with the very slight expansion shown in the indirect taxes. He said with some trepidation, and knowing the enormous difficulty which the discovery of new sources of taxation involved, that it was better service to the State to increase the number of sources of revenue than to attempt to find simplicity—simplicity had been carried to the danger point. Harcourt criticised his words in the statement that it was the first time since in 1841 Peel had begun the policy of diminishing the number of taxed articles, that a Chancellor had indicated a desire to reverse the direction of policy by increasing them. This was the beginning of the many controversies that followed. Sir Bernard Mallet has said that Goschen never foresaw the elasticity still remaining to the old indirect sources, nor the possibilities of direct taxation.

Goschen resisted a proposal to reduce the tea duty by calling it a " poll tax on a very low scale," without which a large proportion of the population would pay nothing to the Revenue. It had stood at 6*d*. per lb. since 1866, while the income tax had been reduced.

The new estate duty proposal applicable to estates over £10,000 in value brought out early prognostications of possible evils. Gladstone saw no injustice, but he had never been able to observe any absolute rule by means of which the graduation was to be kept within bounds ; rolling stones got faster and faster !

In Sir William Harcourt's first Budget in 1893 he had to meet a small deficit. He put a penny on the income tax, and he referred to Hicks Beach's similar action as " having rung the knell of indirect taxation." Goschen accused him of taking the easy course of borrowing the latest automatic invention and putting *a " penny* in the slot "—simple, but possibly unjust. He himself had tried to find new sources. On both sides there was great anxiety to escape any imputation of increasing indirect taxes. Taxation policy, since Peel, had only clearly realised the negative aspect—relieving the poorer classes of the burden of consumption taxes, and had no clear vision of the positive policy of direct taxation putting the heaviest burdens on the rich. It was an accepted tradition always to preserve the proportion of relief between the two forms. Lord Courtney said "indirect taxation must be maintained until it was found practicable to impose a direct tax on the less wealthy taxpayers."

Harcourt's revision of the estate duties in 1894 provoked the inevitable discussion on graduation, and Goschen heavily repudiated any suspicion that he was in favour of it. "There were no stages, no landmarks, nothing whatever to guide. No principle of justice or prudence, no principle whatever." It was carried by only 308 to 294—14 majority. In the Lords, the Duke of Devonshire spoke against the accumulated horrors of aggregation and graduation. It is interesting to read Sir William Harcourt in 1895 saying that expenditure had reached the limits of tolerable taxation.

There is [he said] a universal demand for more and more expenditure every year for every conceivable object, all of them excellent objects, but all of them pursued absolutely without any regard to their cost. Besides these demands for additional expenditure for every possible object, there are continual proposals to cut off first one and then another item of the public revenue. In private establishments you endeavour to regulate your outlay with some regard to your income, but in public administration you have to make your taxation keep pace with your profusion. I am not going to preach a sermon on this subject, because economy (not only political economy) has become a lost art at the close of the century. It is a depised and unfashionable idea, and I do not know whether, under any circumstances, it will ever come into fashion again. Every one grumbles if money is not spent on his favourite fancy, but he grumbles still more when he is called upon to find the means of paying for it. But now, having made up our minds to spend this unexampled sum, it is time to consider what are the means we possess, and what further means we require to defray the cost.

Sir Michael Hicks Beach, in his first Budget, 1896, said that indirect taxation had fallen from 73 per cent. in 1842 to 62 per cent., in 1861, and to 56 per cent. in 1891 and 52 per cent. in 1895. It had also dropped in absolute amount from 27*s*. 3*d*. to 24*s*. 9*d*. per head, whereas direct taxation had grown from 10*s*. 1*d*. to 22*s*. 6*d*. But an 8*d*. income tax was criticised as too high in times of peace.

In 1897 the discussion on the relative taxation of Ireland focussed attention from a new angle on the fact that any community whose people were relatively poorer than another would be relatively overtaxed through indirect taxes. Harcourt made it his goal to get the percentages equal.

In 1899 the Boer War raised new financial strains. Lord Moulton said, " We have a Government which dare not tax the poor and will not tax the rich," while others protested against the usual official calculations of the percentage borne by the two forms of taxation, which did not go far to establish the truth about the incidence of the burden on different classes of taxpayers.

In 1902, Sir Robert Giffen defended—

reserving high direct taxes for emergencies for which they are eminently adapted on account of the facility with which they can be put up for an occasion, so as to obtain the exact sum wanted without any disturbance of trade such as is necessarily attendant on changes in indirect taxation. (*Times*, Jan. 7, 1902.)

Mr. John Morley said :

Until you have some method, automatic or otherwise, for adjusting the relation between direct and indirect taxation, there will be great trouble.

Sir Bernard Mallet says :

The extreme difficulty of imposing new indirect taxes affecting the poorer classes was partly caused by the want of any real standard other than "rule of thumb." ("British Budgets," p. 196.)

In 1911, Mr. Lloyd George repudiated the idea that some must be exempt because they were earning a small amount : " All should give, as in a church, but according to their means—they all have an interest in the State." But Mr. Snowden said, " Indirect taxation is a violation of every just and sound principle."

Sir Bernard Mallet put the increase in the burden borne by income tax payers from 1888 to 1913 as 134 per cent., and the non-income taxpaying class as 59 per cent. In 1913 he computed the total taxation of the income tax payers as 12 per cent. (from 7 or 8 per cent. to 25 per cent.), and the non-income tax payers at 4 per cent. of their incomes. In 1913 Mr. Lloyd George, speaking on food taxation in the House and the reduction of £5,000,000 by the Liberal Government, said that this kind of taxation was already less than in any other great country (the proportions being: U.K. 10; U.S.A., 14; France, 16, and Germany, 30). He said that if the remainder were taken off in this country they would leave a class which had great political power and control over expenditure without any share in responsibility.

Sir Robert Giffen once said:

> On the whole, an equal amount of indirect taxation causes, perhaps, only one-half or a third of the privation and suffering entailed by an equal amount of direct taxation.

Reasons for the Trend To-day.

Whether we survey the course of history or look over the countries of the world to-day in their various stages of development, in either case we find many and diverse reasons for the movement away from indirect to direct taxation. Some causes or reasons apparently striking will be found on examination to be merely trivial, and notable only as the outlet by which a more fundamental movement or spirit made itself first felt. We may gather up all these various causes and classify them under three broad heads. The first, natural administrative development; the second, social and political; and the third, economic.

(i.) *Natural Administrative Development.*

Under the first head, that of *natural administrative development*, come many of the causes that we can see at work to-day. It is most natural for countries in their early stages of development to rely almost entirely upon indirect taxation, and in proportion as they become more highly differentiated in function or densely populated, and industrialised so as to be more completely of the type of western civilisation—in that proportion is it found more administratively possible to resort to direct taxation. A country that is sparsely peopled has ill-developed administrative machinery. It often comprises mainly agricultural and pastural pursuits, or hand and home work, and accountancy and exact bookkeeping are little known. We know even in our own country how far behind other industries agriculture is in the keeping of exact records and accounts, which are essential to a good system of direct taxation.

If such a country has an elaborate income tax, with the best will in the world many of the inhabitants could not tell their annual means within a wide margin. Moreover, there do not exist, at any rate obviously, such wide differences of wealth or of ostentation of wealth as one would find in more sophisticated countries. There is not the same temptation or stimulus to tax specially those who are best off except upon a proportional scale. Indirect taxation by taxes upon consumption has a fairly equal effect over all the classes of inhabitants. They are not obviously and markedly regressive on the poorer classes, as they are in countries where there is a large proletariat of wage-earners. If one studies the income tax methods of 100 years ago in this country from the literature and documents that have come down to us, one smiles at the crude methods and rule-of-thumb ways of getting at people's incomes or profits, and even where books and accounts were rendered how simple were the tests applied! It is only within our own recollection of the last twenty years that the Revenue has taken any notice at all of balance sheets, in the computation of liability, important as they are as the true accountancy check. If we look at the income tax to-day in India, its administration is of a different order, almost in a different universe, from ours. A European or an educated man may be in charge of the administration of a particular area, but in detail much is left to native clerks, and the administrative methods appear to us to be of the crudest. The salt tax reaches the multitude upon whom a direct progressive income tax is unthinkable. Even in France, with its lately adopted income tax system, there is a great deal to be done in the way of the development of administrative machinery and precision. There is a desire everywhere to rely upon outward tests—what are called *presumptions* of wealth. Now a country in an early stage of development has to rely very largely upon a scattered and not too skilled administration, perhaps with no tradition of industry and probity. Such a country has one or two main outlets for its produce, and means of ingress for imports, confined to one or two chief ports, and by concentrating administration at these places, the gateways, as it were, of the country, it is possible to levy toll on things going in and out. Consumption taxes or taxes upon produce are the rule. These taxes are most easily checked at such places. As we know, however, the duties are not very responsive to Exchequer demands—putting the rate of duties up may even diminish the total revenue; they do not answer to the principle of faculty or ability, they often interfere with trade; they carry little sense of political responsibility in the payer. As the countries develop and the richer classes appear and make themselves felt by being ostentatious, the temptation comes, of course, to adopt the methods seen to be operating in developed countries, and to have direct taxation, especially as a country in this stage has the demands of a growing community for all kinds of social amenities and the accompanying expenditure. Growing administrative experience has come at the same time as the demand for the new system develops through the obvious shortcomings of the old, and through developing ideas. Men see that taxes upon things do not always reach persons in the way in which persons deserve to bear them. The desire to get direct to the individual becomes overwhelming. Each of these three groups in my classification leads, as it were, to its own Nemesis—that is to say, brings about a check of its own order. The nature of the classes of checks that slow down the movement will be clear after I have described the other classes of movement from indirect to direct taxation.

(ii.) *Social or Political Reasons.*

"I feel it more than other people," said Mrs. Gummidge. Starting with the root proposition that everybody feels his own pain or inconvenience more than other people's, it may be taken for granted that each class will regard the taxation that falls upon it as a rather more important and difficult thing to bear than the taxation that falls upon others. This is, perhaps, rooted in human nature. From it springs the fact that, consciously or unconsciously, as a party develops political power and the ability to carry out its own desires or to express its own feelings, so it will tend to throw the burden of new taxation upon a class that is not so endowed, or so it will tend to give itself rather the benefit of the doubt in spreading any relief from taxation. Under the impression that it is doing justice, it will in any case tend to throw more burden upon others than upon itself, even if it is desirous of spreading it equitably. So when we find a majority democracy with growing power in the Legislature, there will be an inevitable tendency to throw larger burdens upon a minority. I am not *merely* referring now to rich and poor—the same applies to different classes. One can see the same thing in the tendency at the beginning of the nineteenth century, when the growing manufacturing classes and the agricultural classes were two camps, each attempting to get the economic condition of the country favourable to itself. Naturally the agricultural party will feel that taxes upon agriculture and agricultural produce are proper things if protective in influence, and if it gains power there may be a tendency for it to fail to repeal the special duties upon those classes, even if it does not impose obviously new ones. Still more is this reinforced in the case of an obviously rich class and a large growing class of relatively poor people. Without looking specially at the growing burdens, unless a person is continually making a song about his burden—and even if he *is* doing so—there is the tendency to throw more and more upon him. It does not necessarily mean that the majority must have power in the Legislature; it only requires one of the political parties to be seeking the support of the voters. That party itself may belong to the rich, but, as a condition of its power, it is, perhaps, dependent upon others, and as it is necessary to get the support of a great majority, naturally it tends to move to the will of that majority, and thus that majority, without being in actual power itself, can control the policy of taxation. After a time this develops far beyond a mere shifting of the existing burden to a point where so long as any person has an excess of income above others he must be first called upon for new resources, especially when Socialism is a working theory amongst the classes. They say then: "These are the richer classes, the employing classes; they ought to bear all the expenses, and the taxes should fall upon them." Indeed, they are prepared as a matter of public policy that the taxpayer should come right down to their own level. We get then Mr. Snowden's doctrine [1] that you must not look at what you take from a man, you must look at what he has got left. Of course if you do that then there is no limit to what you may take right down to the point of securing equality of income. We shall see later on what automatic check comes upon this particular line of thought. All those numerous political theories with which we are well acquainted to-day fall under this particular trend of movement from indirect to direct taxation, because, as we know, by indirect taxation it is practically impossible to establish a high tax upon the rich, whereas the taxes on things that are likely to be yielding a good revenue are almost certainly taxes which must be heavily regressive on the poor.

There are, indeed, exceptions to the general historical trend where the relative power of various social classes has been favourable. Certain kinds of indirect payments have always come first, but as soon as it has been seen that these invariably increase the price of commodities, some communities have early shown more opposition to indirect than direct taxation, relying on the latter to furnish ordinary revenue.

In early mediæval cities there was often a strong democratic basis, and frequent attempts at times of upheaval to reach the richer classes more effectively by direct taxes. But with the passing away of the mediæval democracy "property and income taxes disappeared, and the octroi and municipal indirect taxes again came to the front." In England there was sufficient of the democratic instinct to keep alive a running objection to general excises on necessaries. The liberty-loving Americans of the new freedom showed similar opposition to the general excise. A Congressman said in 1790 that a poor man would soon not be able to wash his shirt without paying a tax! In Holland, the original cradle of the modern system of excise and stamp taxes, the wealthy mer-

[1] This statement was made on several occasions prior to his accession to office.

chants and moneyed interests devised a system which would not unduly burden themselves, but be diffused to the masses.

> The indirect taxes of the 17th century [says Seligman] were the outgrowth of the effort on the part of the commercial classes to escape the burdens which the landowners were desirous of placing upon them.

(iii.) *Economic Causes.*

The ***third group*** of reasons for the development from one class to the other I describe as the "Economic." Of course it may be shaded in to overlap the other classes, but still, in the main, it can be distinguished. As we know, for a long period economic theory taught that the fair method of applying taxation was to apply it proportionately to people's means, and it was always possible, at any rate in theory, to get a proportionate tax by taxing consumption, a tax that would be at any rate proportionate to what a person spent, even if it were not proportionate to the total income, including what he was saving. In practice, of course, taxes on consumption as a whole rarely exist. Taxes on specific commodities are the rule, and unless these are very numerous indeed we do not conceive them being even proportionate upon the richer people. Immediately one tries to get taxes upon all the things consumed by the richer people, then, of course, one gets all kinds of fancy taxes that are very expensive in an administrative sense to collect. So in practice it nearly always comes down to the fact that a selected number of articles for taxation do not make a successful tax upon consumption as a whole. Even a sales tax, with its other economic disadvantages, cannot always achieve this end. As soon, however, as the marginal theory developed and the principle of diminishing utility was established, it was abundantly clear to everybody that a better principle for taxation was to try to make the marginal sacrifice of richer people equal to the marginal sacrifice of poorer people, and to do this a correspondingly larger sum, a progressively larger sum, had to be taken from the larger incomes. This led to the much-condemned graduated taxation, a form of taxation which the economists of sixty or seventy years ago looked upon with horror and regarded as having no economic basis. To-day it is regarded as having a quite secure basis in economic theory. Many go very much further and say that it is the duty of the State to rectify, through taxation, social inequalities and inequalities of wealth, and that graduated taxation forms a proper method of doing this. Others say that the common expenses should fall upon the rich in greater proportion ; but apart from either of these theories of the duty of the State, and looking merely upon taxation as a simple means to raise the national funds, we can find in economic theory a secure basis for progressive or graduated taxation. Now it is obviously very difficult to secure anything like graduated taxation through indirect taxes and taxes upon consumption. It has been shown that they tend to be regressive, and cannot secure in the ordinary way even a good proportion. How much less, then, can they secure a progressive tax ?

This advance in economic thought was quite enough by itself to bring about a pretty considerable transfer from indirect to direct taxes.

A second economic movement arose from the natural instinct about the protection of home industries. Accepting as a common denominator of economic thought the necessity for protecting infant industries, or, let us say, "safeguarding vital industries," it may be assumed that to protect is a normal and natural thing for countries in their earlier stages of development. As countries became more fully developed and out of the infant stage, then the economic reasons for protection became less and less. Some of the evils of protection may perhaps be coming home to the people, and there then arises a movement to escape from worse evils. I do not say that this is a uniform stage through which all countries pass, but there are many economists who look upon the spirit and the demand for protection as a primitive stage of economic thought, and who regard the desire for free trade—except for specific cases where some pretext may be available—who regard the escape from the general principles of protection as an evidence of emancipation in economic thought.

A third class of reasons includes those which have to do with the development of the political consciousness of the individual. In the early stages of political thought the average inhabitant looked upon the State as a superior policeman who would hunt him down if he did wrong; who made tiresome regulations that he must obey—a kind of negative, or Spencerian "thou shalt not" agency of an outside power—or else he jumped to the opposite extreme, and regarded the State as a kind of fairy godmother, who could shower upon him all kinds of good things if he pestered her long enough, or could relieve him from the costs of his own laziness or ill-doing, or who could, at any rate, save him from destitution—nay, more, could put him into affluence. The recognition of the State as an entity of which he himself formed a part, and in which he had peculiar and personal responsibility, was, of course, the latest development. There can be no question that, as both the repressive and negative aspects and the "fairy godmother" and "relief from poverty" aspects cost money, the financial aspect of government is most important in the development of this political conscience. In the childhood of the mind towards these things, it is, no doubt, necessary to put the powder between jam—that is to say, by indirect taxation to raise the necessary funds; and a great advantage in raising these necessary funds is that the man is paying taxes without knowing it, like the man who talked prose all his life without being aware of it. The taxpayer may be vaguely conscious at the time when it is actually imposed that it is intended he should bear it, and know also that in every pound of tea, or in every pint of beer, there is such and such a duty; but fortunately he is not always thinking of these things, and whenever he makes his purchases he does so without these particular imposts in mind.

Dr. Dalton has said that in a strictly honest State he ought to be told when he was purchasing one of these articles that so much was the price of the article, and so much was the tax due to the State. But part of the whole virtue of indirect taxation is its silent character. This being so, the man, of course, is kept in a kind of childish attitude towards the results of taxation, and the object of State expenditure. It is a more advanced stage when the State has the pluck to go to him and tell him like a grown man what the sum is that he owes to the State, and what it is for. He then knows that all the collective operations of society cost money, and how much they cost, and takes a far more personal and direct interest in that great power of governing which has been now committed to his hands. We cannot be said to have advanced far upon this line. It is true that the local demand note for rates shows the various purposes for which the rate is to be applied, but how seldom these get into the hands of those classes of voters who may most profit by it! Several years ago, by deliberate intent, the objects of national expenditure were printed, as they still are, on the demand note for income tax, in order that the taxpayer may have some idea of the objects to which his money is being devoted. It is a lesson, and is intended to be a lesson, to bring home to people the cost of governing. Generally speaking, however, we are still in the stage when a vast mass of the people cannot be moved to take any interest in the results of taxation except to look upon it as an unmitigated nuisance. They would agree with Dr. Johnson's Dictionary definition of "excise" as "a *hateful* tax levied upon commodities."

THE CHANGE IN RELATIVE BURDENS.

Sir Herbert Samuel, in his paper upon the taxation of the various classes of the people,[1] included under direct taxation, income tax, super tax, and death duties, and also inhabited house duties, but he left out of account altogether the stamp duties, as being too difficult to allocate to different people's incomes. With the indirect taxes he included the profits of the post office. I should like to remind you of the result of that inquiry. In 1903–4 *the income of £150 a year* bore ·1 per cent. of direct taxes, and 4·8 per cent. of indirect, or a total of 5 per cent. This position was substantially maintained in 1913–14, but in the year 1918–19 the indirect tax was raised to 10·9 per cent., making the total 11 per cent. For the unearned income of £500 a year the 1903 result was 5·6 per cent. direct, 3·1 per cent. indirect, 8·8 per cent. total. In 1913–14 the figures were 6·8 per cent. direct, 3·1 indirect, total 9·9 per cent. In the year 1918–19 the total was 12 per

[1] *Jnl. of Royal Statistical Society*, 1919.

cent. direct, 6·1 per cent. indirect, total 18·1 per cent. The income of £5,000 a year bore 8·7 per cent. direct, 0·8 per cent. indirect, total 9·6 per cent. in 1903–4. But in 1913–14 a change had come over the scene: 11·6 per cent. direct, 0·8 per cent. indirect, total 12·4 per cent. and in 1918–19 it was 42·2 per cent. direct, 1·3 per cent. indirect, total 43·5 per cent. The income of £50,000 twenty years ago bore 10·2 per cent. direct, 0·08 per cent. indirect, total 10·2 per cent.; raised in 1913–14 to 18 per cent. direct, 0·08 per cent. indirect, total 18·1 per cent., and in the year 1918–19, 63·7 per cent. direct, 0·1 per cent. indirect, total 63·9 per cent.

I have shown elsewhere [1] that the wage-earner who has no conception of *an annual income* and thinks only of his weekly wage is not in a good position to pay a direct tax to the Revenue based upon the annual earnings. That means, of course, that it has to be collected with considerable frequency, if not once a week, once a month, or once a quarter at the outside, otherwise his circumstances change completely from the date of the last computation of his ability. This means then that the cost of collection in his case, compared with the amount that he pays, must be pretty considerable, and rules out in this group that class of direct taxation based upon the progressive principle.

Some have held it to be an advantage that taxation should be imposed without being felt, and if, through the medium of indirect taxes, people really contribute to the Revenue without feeling any sense of hardship, then they think that the real goal of taxing ability has been reached. On the other hand, others have thought that the true goal of taxation is that the contributor should really know what he is paying at the time he is paying it, and what he is paying it for, if he is to be made into a good citizen, to take an interest in his country's affairs. It is not regarded as a virtue that he should be paying without knowing it, otherwise he will never realise the truth of Cicero's saying that "Taxes are the sinews of the commonwealth." Hardly will he rise to the level of Mr. Barkis, who said: "It was as true as taxes is. And nothing's truer than them."

[1] "Fundamental Principles of Taxation," I. and II.

XI.

THE CAPITAL LEVY.

I.—Practicability.
II.—Economic Effects.
III.—Deflation.
IV.—Effects upon Future National Revenue.

In all disputes, so much as there is of passion, so much there is of nothing to the purpose; for then reason, like a bad hound, spends upon a false scent, and forsakes the question first started. And this is one reason why controversies are never determined; for, though they be amply proposed, they are scarce at all handled; they do so swell with unnecessary digressions; and the parenthesis on the party is often as large as the main discourse upon the subject.

SIR THOMAS BROWNE: *Religio medici.*

XI.

THE CAPITAL LEVY.

I.—Practicability.[1]

Any student of taxation at home and abroad who has had to pore over the evidence given before committees of inquiry, to read old Hansards or Congressional Records relating to matters which are now accomplished and accepted facts, knows that prophets of calamity have been universal. There never has been a tax that some did not prophesy would be "impracticable" or "dangerous" or "fatal." Any practical administrator also who has had the task of formulating new schemes, whether or not they have ever seen the light of day, has handled masses of correspondence bearing the same burden. Less than twenty years ago even experts said that the graduation of the income tax by means of a super tax and the differentiation between different classes of income was impracticable. They have been proved wrong. Just so have the prophets of evil been proved wrong—but not always. The bootless cry of "wolf," whether wanton or honest, has never made that animal extinct. Any prophecies about the difficulties of a practical and administrative nature that would arise over the land values duties were not unjustified.

In my study of the different projects for the capital levy I have, therefore, not approached the matter with any natural bias against its practicability. In 1917 the idea of an immediate capital composition for future tax burdens, reducing the debt at a time when the price-level was high, was so attractive as a way out of future financial difficulty that it was only to be rebutted by strong practical considerations. In fact, when I gave evidence before the committee on the taxation of war wealth in the spring of 1920, so

[1] Reprinted from *The Spectator*, November 24th, 1923.

imbued was I with a sense of our terrible difficulties in handling the floating debt, and the absolute necessity for bringing to an end in some way the ever rising spiral of inflation, that I thought the scheme for raising some 500 millions, though a task transcending in practical difficulty anything that had been attempted before, was just worth the risk of the attempt. It was on the border-line of practicability, but I preferred an immediate crisis then, of limited scope and known cause, to the inevitable smash that was ahead. Almost anything was better than remaining in the fool's paradise we then enjoyed. Within a few weeks after, however, the tide of inflation turned. The outlook of the financial world became critical, and what had been practicable or barely practicable before became highly dangerous. I did not hestitate to tell Mr. Austen Chamberlain that I had changed my views. I changed them because the circumstances had changed, and the check to continuous inflation had come otherwise.

From the point of view of practicability the capital levy is, in my judgment, considerably more difficult than the war wealth levy, both in technique and also by reason of causes related to the very much larger sums that it is intended to raise. Nearly every difficulty that existed in the more limited scheme is multiplied, not merely six-fold, but often much more, and a whole set of other difficulties are added. The first thing that one has to realise is that "practicability" is a relative term. We have a certain standard of efficiency for a tax in this country, which is higher than the standard, say, in France, and particularly in Italy, and if that standard is not reached, we say that the tax has "failed." By "practicability" the possibility of reaching such a standard is implied. Again, difficulties arise in some particular applications of the scheme which threaten to jeopardise the whole principle of a tax, and if we have to resort to such extraordinary devices to deal with them that we set up new economic tendencies which themselves tend to make the rest of the tax more difficult, then the scheme is ceasing to be "practicable." If, therefore, by the best administration that we can devise we could not succeed in getting more than 70 or 80 per cent. of the theoretical yield of the tax, owing to evasion and owing to technical difficulties, the tax is not a " practicable " one. Again, if our methods of dealing with difficulties in the course of assessment and collection are such that grave inequalities are introduced between individuals as compared with what was theoretically intended by the Legislature, again we should have to say that it was not practicable. Upon what does practicability depend? Hard arithmetic marks the outside boundary, but within that area of the practicable, psychology marks out a field much more limited in extent. Taxation is psychology in the sense that psychology alone can upset any scheme theoretically perfect. What is possible where there is hope and acquiescence may break down hopelessly where there is fear and distrust.

The peculiar difficulties of the capital levy fall mainly under two heads: valuation and collection. The valuation of wealth looks simple, but often involves some of the most difficult matters the human mind can attempt. (1) If a tax of 1 or 2 per cent. (on the continental models) is being based upon capital values, £100 on £10,000 is not altered to any material extent if the valuation of £10,000 proves to be too much or too little by 5 per cent., but if the tax is heavy, say 50 per cent., then, of course, every error in a valuation carries an enormous burden of error in the duty that is payable. (2) The difficulty is not avoided if the valuation is correct when it is made, for if the duty can be paid only over a period of time, the valuation has to remain correct over a period also, unless injustice is to ensue. (3) Directly a tax exceeds in amount the annual income that can be drawn from the wealth under taxation and such a tax has to be paid outright, the question at once arises of the necessity for realising a portion of the wealth itself in order to discharge the duty, and in the process of realisation the valuation itself may be jeopardised. (4) The case is often compared with that of death duties, but there are many important differences. In the first place, even if the amount of death duty should be incorrectly computed, or not quite just in comparison with another similar case, the duty is paid by the estate, the estate is divided up amongst the various beneficiaries, and nobody is precisely in a position to compare the actual divergences or feel the injustice. But such is not the case where two men are dissimilarly taxed upon equal fortunes and both live on side by side into the future to realise in their own persons the full disparity. (5) Again, the practical problems raised by the realisation of 50 millions per annum continuously are of a different order from those which attend the payment of 3,000 millions.

Can a valuation be insisted upon for final settlement which cannot itself stand the shock of settlement? I have formed the conclusion that any scheme which must rely upon capital valuation of highly uncertain annual yields as its main feature is a third-rate taxing expedient only to be resorted to when all else fails.

The great question of life interest of remaindermen does not arise to any material extent upon death duties, whereas it is the central difficulty of the capital levy. If a given block of wealth under consideration, correctly valued at, say, £100,000, does not belong to any one person outright, then our difficulties begin. Suppose that there is a life tenant who has such an expectation of life on the tables of mortality that his share is worth £70,000, then there will be a remainderman whose interests are worth £30,000. The remainderman will be assessed to the levy on this amount. He may have no other resources at present than a salary, and many years may elapse before he is put in funds to meet the tax. But his tax will have to be paid, and paid presumably by anticipation of the trust funds. If the trust funds are affected, and the life tenant lives on so that the proportions do not work out as assessed, who is to reimburse the affected party?

The root of the trouble is that while valuation of interests by reference to expectation of life must be dependent upon mortality averages, although such averages are satisfactory for the *mass* operation of life insurance, they are wholly unsatisfactory for the *individual* burden and justice of taxation. The average is right in the mass, but clearly wrong as an individual estimate in over 90 per cent. of the individual cases. In other words, the valuation of a life interest for a heavy tax thereon would be seriously different from the ultimate facts, either too much or too little, in the great majority of cases. The life tenant "A." has a valuation of £70,000 on his expectation of life, say, seventeen years, and has other property £30,000. Assume that he pays £35,000, the bulk of which he raises by mortgaging his whole independent property. He dies the following year, and instead of being worth £30,000 his estate is wholly bankrupt and his dependents penniless. "B.'s" reversion was valued at the residual £30,000, on which he pays, say, £5,000. The following year he comes into the full interest and has really been undercharged by a very large sum. There is a double injustice, and it is certain that provision would have to be made for some years to come for the revision of cases of the "A." type, at any rate, even if "B." were not re-charged. It might be thought that simple provision could be made for a transfer of the burden, *e.g.*, the trustees could take the responsibility for the whole duty assessed on "A." and "B." together, or realise part of the trust funds, and pay to "A." an income appropriately reduced, and by such arrangement apportion the whole burden automatically on any eventuality. This would be possible, indeed, if the rate of levy were a flat rate, but it is completely defeated by the varied rates and high progression.

A. and B. have fortunes of quite different size. The total duty on £200,000 at 45 per cent. and £100,000 at 30 per cent. is £125,000, but, on the adjustment, when A. dies much before his expectation the duty ought to be, say, £20,000 at 10 per cent., and £280,000 at 50 per cent. equals £142,000. The combination of differing shares in a total valuation with different tax rates makes the original duty too much or too little at every readjustment, and a just assessment of the levy involves a continual modification, in which the true yield of the levy to the nation is unknown for many years. Moreover, one has to settle the principle of such questions as this: On readjusting A.'s life interest, should any allowance be made if his other fortune has meantime increased in value? On readjusting a life interest must one adhere strictly to the original valuation, despite the fact that the corpus of the trust has in the meantime completely changed in value? If these questions are pondered they will be seen to be most far-reaching in principle and comparative justice.

Only the simplest case of life interest has been referred to above; in practice many much more complicated cases are found, for which a proper remedy is even more elusive. The importance of the question may be judged from the fact that somewhere between 15 and 20 per cent. of the wealth that would come under the levy is subject to such settlements.

Considerations of a different order apply to "valuations" on other "average" views of such assets as mines of capacity not strictly known, where the valuation can be clearly falsified *within a period during which the total annual profit itself may not aggregate to the amount of the tax on such valuation.* The total wealth under the levy in which such a contingency is possible is probably not less than 25 to 30 per cent. of the whole.

So much for examples of practicability on valuation. Space fails for me to refer in detail to problems which arise on collection, due to the admitted necessity for instalments or mortgages in many cases, *liquidated* over a period in which price levels fluctuate or the original values change. I will content myself with repeating an illustration which so far has not been satisfactorily met (and which, incidentally, is a comment upon a recent dictum that the present time is not so propitious as three years ago). A levy of 20 per cent. was applied in 1920 to A., B. and C., each with a fortune of £200,000 in shipping. A. owned five vessels, each worth £40,000, sold one and paid his duty. B. and C. each owned one vessel worth £200,000. B. arranged a mortgage of £40,000 and paid the duty. C. arranged to pay £8,000 per annum for five years, plus interest. In 1923, A.'s five vessels are worth in all £50,000; he owns only four, worth £40,000, and so has suffered a tax of 20 per cent. as intended. B. has a ship worth £50,000, mortgaged for £40,000, and is worth £10,000 instead of £50,000, so he has been taxed 80 per cent.

C. is trying to pay £8,000 per annum out of an annual income of, say, £5,000, and is forced to mortgage at this rate; his final rate of taxation is still unknown.

The capital levy is "impracticable" in the ordinary sense of the word. It is "practicable" upon an altogether lower level of equity, yield and efficiency than has hitherto contented us, and it is practicable even on that level only if certain essential political conditions are present. Those conditions are not present in any proposals now actually before us.

II.—Economic Effects.[1]

The actual *ultimate* effects of a levy must vary according to the political circumstances by which it is attended, for such circumstances may be classified along a line between two extremes, from the most favourable to the least favourable. On the other hand, the *immediate* effects of a levy, the administration of which is carried through with the maximum success attainable in the circumstances, are much less dependent on differences in those conditions; and the first-hand effects will be much the same whether the circumstances of the levy governing the future are at one extreme or the other along that line.

Considerations relating to the capital levy may be classed under four heads: Political, Statistical, Economic and Administrative. There are very few people who are qualified to speak with authority under all four. Political considerations, such as justice in principle, expediency in practice, guarantees of non-repetition and intentions regarding future taxation, are everybody's property, though, indeed, many a political intention may be defensible in theory if it can be carried out in practice, but becomes quite indefensible in view of practical difficulties. Statistical considerations, such as the amount of wealth to be taxed, the different classes of wealth, the number of people affected, the effect upon taxation and wealth subsequently, are of great importance in limiting and defining the consequences, but most of them

[1] Reprinted from *The Spectator*, December 1, 1923 (with alterations).

require detailed reasoning of an expert kind, and are not well suited for public judgment. Economic aspects, of course, raise some of the most difficult and abstruse questions that economists can handle. Nowadays, while nobody would think of setting up to be an engineer or a lawyer or a doctor or a chemist without long and arduous training, any one can call himself an economist, and may, indeed, get some reputation as such without having any kind of mental aptitude or special experience. The platforms of the moment are crowded with politicians who have become economists on easy terms and without years of conscientious preparation. The economist cannot begin his work upon the subject of the capital levy until he is told by the politician in detail what is really intended, and can judge whether the "economic man" will ultimately regulate his actions as if convinced by that intention. The economist also must keep in touch with the administrative expert, who is acquainted with the technique of taxation and can tell him, within a little, what is possible and what measures will have to be taken to overcome particular difficulties.

If my remarks appear somewhat pontifical it is not because I care for speaking without qualification, but because space suffices only for conclusions and not for a detailed statement of the line of reasoning from which they flow. It is quite impossible to discuss economic effects profitably without carefully laying down the political postulates, and great confusion has been caused because a careful line of economic reasoning, the political assumptions of which have been ill-defined or suppressed, has been transferred to proposals which are politically different. Economic reasoning is organic with its antecedent data, not an interchangeable tail that can be fitted on to any body. From the point of view of ultimate effects of a levy the chief vital political postulates are:

I. Whether non-repetition is:

(*a*) Guaranteed in a manner to carry general conviction;
(*b*) Politically promised, without carrying conviction;
(*c*) Not promised, or
(*d*) Expressly repudiated.

II. Whether the relief given by the levy is to be applied:
- (*e*) In full to reduce the future taxes of the payer of the levy;
- (*f*) In part to reduce the future taxes of the payer of the levy, and in part to other or social expenditure;
- (*g*) Wholly to other expenditure;
- (*h*) Wholly to other expenditure, where higher taxes are also intended.

(II. (*e*) will be found, in the writings upon the levy, divided into two classes: those which suggest an equivalent relief to taxpayers as a whole, and those which contemplate a more or less exact equivalence to individuals.)

It is obvious that, in a combination of I. (*a*) and II. (*e*), where the non-repetition of the levy has been fully guaranteed, and those who pay it are to reap the advantage in a reduction of their subsequent annual taxes, the satisfactory economic consequences of a levy would be at their maximum possible point. It is equally clear that where the right to repeat the levy is expressly left open, and where there is to be no relief to the future taxation of those who have paid it, the consequences are at the point of minimum advantage. In between these two points there is a considerable range of possibility.

For the purpose of setting out my conclusions, I adopt those features which appear to me to be, in the circumstances, most probable, and assume that some kind of promise of non-repetition will be made, without, at the same time, the invention of any new form of constitutional guarantee which will carry the degree of conviction we attach, for example, to the promised terms of repayment of war loans. One could spend time in exploring constitutional possibilities, *e.g.*, every levy receipt might, on the face of it, contain a Government undertaking that the "corpus of wealth" brought under the tax represented by the receipt is franked for a minimum period of twenty-five years from any tax of a similar kind. What such an expedient would be worth must depend upon individual psychology. Strong advocates of the levy have admitted that no "guarantee" actually binding on future electors or Ministers can, in fact, be given.

Indeed, any assumption that the levy can be carried through with some rough measure of success is one presumption in favour of possible repetition.

Redemption of £3,000,000,000 of the National Debt would relieve the annual expenditure of an amount of interest between 140 and 150 millions per annum, but the sum taken as levy must have certain important effects upon future revenue, and the real average net relief on balance could not be more than £50,000,000. To what would this be applied? Assurances that the whole £3,000,000,000 of levy will be used for redemption of debt must be carefully distinguished from undertakings to reduce taxation (instead of keeping taxes up and spending more on social purposes). The maximum assumption that it is safe to make is that the normal rate of income tax will be reduced from 4*s*. 6*d*. to 3*s*. 6*d*. in the pound.

The main ultimate economic problem is: What *difference* will there be in the incentive to accumulate new savings in the future with income tax at 4*s*. 6*d*. and no fear of a levy on the one hand, compared, on the other hand, with income tax at 3*s*. 6*d*. and an apprehension of a second levy at a moderate distance of time (the degree of apprehension varying with individuals, but being appreciable on the average and represented by a definite mathematical risk)? Under which outlook will the aggregate savings of the British people be greater? To get any approach to an answer the present aggregate savings have to be resolved into their several constituents or categories, the behaviour of each class considered, and the results aggregated.

The problem is partly one of statistics and partly one of psychological economics. Economists know that a change in the rate of net reward (or interest) for saving increases some kinds of saving and decreases others. Under the levy scheme the reduced income tax should give a greater power to saving or scope for saving. Is the will and incentive to save going to be less or more? The first broad classification is:

1. Individual savings against being worse off.
2. Individual savings in order to be better off.

3. Collective saving, not subjected to the individual decision.

The chief example of the third class are the reserves of limited companies, where the effect of the fear of a repetition of a levy is negligible. Whether more or less is put to reserve instead of being paid to shareholders, *i.e.*, whether the money is "saved" or "spent," is determined somewhat impersonally by a board of directors and not by a balance of individual replies to the personal question: Is the reward for saving good enough or shall I spend?

Such collective savings might be increased by the full scope allowed by the reduced tax, say by one-fifteenth, but probably the maximum figure would be seven millions per annum. Certain other small sections of savings might show increases, being little deterred by the fear of a second levy, but other classes would receive a most important check. On balance in the aggregate I have come to the conclusion that to go on as we are with our present tax and no fear of a levy would result in a fairly substantial balance of aggregate savings in *excess* of the accumulation that would take place with a shilling less on the income tax and the "shadow of a new levy." Partisan opponents of the levy—those who feel their objections to the levy first, and collect their reasons afterwards, as distinct from scientific opponents who try not to let the wish be father to the thought and whose conclusions follow from their reasoning—consider that I greatly understate the "case against the levy." What modifications of this unsensational conclusion would flow from a change in the postulates? A reduction of the income tax relief from 1*s.* to 6*d.* would not have any important effect. But a change in the degree of "risk" measured, let us say, by the ratio that a 20 per cent. risk at Lloyd's bears to a 10 per cent. risk, would be much more than proportionate—indeed, exceedingly marked—in its effect upon savings, and the "fairly substantial" difference referred to above becomes a really dangerous one. Much, therefore, must depend upon the future of political ideas as to the ultimate effect upon savings. This, in turn, must affect employment and general industrial expansion, and if the accumulation of savings for embodiment in fixed capital assets, factories, etc., does not keep step with increasing population, the average net yield to human effort in this country must diminish. The risk of a second levy is an economic dynamic of the first importance.

The proposed levy is so progressive in its rates as to modify profoundly the present distribution of wealth. Such a modification transfers a responsibility to those whose position is relatively improved, to keep the volume of annual savings adequate to our needs. Whether we like it or not, a large part of the onus of that saving, which, while its most obvious effect is the enrichment of the smaller section making the saving, has also important beneficial reactions to the community, has been upon the wealthy. It would doubtless be wholly good if the general advantage of the total saving could be more widely enjoyed. But unfortunately there is no sign that those who benefit by redistribution will actually perform this function to the same extent. Out of £100,000 in the hands of one individual £50,000 may well be put into permanent forms, but if that sum is divided amongst 50,000 people, it is very unlikely on present indications that more than 5*s*. per head out of the £2 each, or £12,500, will be saved. Better apparent redistribution of spendable wealth may bring about less aggregate future production. The majority of people are deceived into thinking rather of 10 per cent. of a stationary 100 than 9 per cent. of a progressive 110, 120, etc.

To consider the immediate economic effects of a levy, I assume that there is no disastrous slip by the Treasury in handling the vast marketing of securities and in steadily equating the supply of securities (which the Government would have received) with the demand (from individuals with funds released by redemption of War Loan). I make the big assumption that the financial market stands the psychological shock, and is determined not to be "rattled." The chief effects would be, in my judgment:

1. A considerable shortage of fixed-yield secured stocks, tending to increase their price and to lower the main rate of interest.
2. A lowering of the price of ordinary speculative and

little known stocks, making, for a time, a greater divergence in yield between this class and the preferred kinds.

3. A sharp contraction in many kinds of manufacturing businesses, and a fall in prices, with a check to employment.
4. Much shifting of the basis of credit, resulting on balance in a considerable measure of natural credit deflation, with perhaps less disastrous effects than an equivalent amount of ordinary deflation, operating as the latter does over the activities of companies as well as individuals.

Most of the influences at work must be depressing to business, lasting for some time, and any relief to taxation which might be forthcoming must be slow in counteracting them.

III.—The Capital Levy and Deflation.[1]

As the election propaganda [2] proceeded it became obvious that, while the superficial aspects of the capital levy and the procedure for its administration are becoming familiar, there is still much misunderstanding upon its less obvious consequences.

The first important stage of economic insight is to look beyond money values and outward expressions of wealth, to the physical objects of possession behind them. Mr. Ramsay MacDonald clearly reaches this stage. He observes the profound truth that these objects would remain undestroyed and intact and that their ownership only would be affected by redistribution ; that real wealth would not have been lost, but would only have changed hands. From this he has concluded that when the banker and financier refer to £3,000,000,000 having "disappeared" from business, they are talking nonsense, and he seems to be unaware that there is a world of values other than the values of physical objects of wealth. He thus applies his knowledge to a point at which it is quite irrelevant. For the second stage of economic

[1] Reprinted from the *Contemporary Review*, January, 1924.
[2] Of December, 1923.

insight is to realise that most complex physical objects, however physically perfect and complete, can only realise their full value in a *conjuncture* or co-operative setting of a highly complex economic, social and political structure whose characteristics are not physical but constitutional and psychological. Is a coal mine "wealth"? Not until men have the will and the skill, and the reserve of stored up values (fixed capital) and the reserve of immediate consumable goods (working capital) to work it. In other words, not until a State is functioning smoothly in internal peace and financial confidence.

At Northampton, Mr. MacDonald had said:

> There was not a single honest financier in the City of London who did not smile when he read the sort of stuff appearing in certain newspapers about panic and so on.

This drew from Mr. W. W. Paine a reply:

> It is incontestable that a huge and sudden contraction of both capital and credit must follow the cancellation of £3,000,000,000 of Government debt which involves the extraction of an equivalent amount from the pockets of the people in cash, bank credits, or securities; and it follows from this that the volume of trade, upon which the employment of our workpeople depends, must thereby be enormously reduced.

At Blaenavon, Mr. MacDonald, secure in the realisation of his truth, made a stinging rejoinder, and referred to the argument:

> which shows how grossly ignorant the so-called experts are when they deal with economic matters. He (Mr. Paine) was under the impression that if we raise a levy from accumulated wealth we are taking 3,000 millions away from the effective credit of the country. He imagines that we are going to do something equivalent to coming round to you in this hall, emptying your pockets, and throwing everything we get into the fire. He supposes I owe you £5,000, and, as a body of creditors, you shake your fist in my face and say: "Look here, we know you can pay up, you scoundrel; pay up at once." This wonderful banker thinks that when the £5,000 has gone out of my pocket into yours in discharge of the debt it is lost. Nothing of the kind. If 3,000 millions were taken by the State from accumulated wealth and used by the State to pay off its debt, that money would go back into the pockets of the people who now hold the debt. The amount of their scrip is

redeemed by cheque or by pounds, shillings, and pence, the money which finds its way into the pockets of the State's creditors is immediately reinvested through the banks into industry, and that new investment goes into industry at 20*s.* in the £, and not at 17*s.* (Cheers.)

There you have a City of London banker, a gentleman who, at any rate, is supposed to know something about the relationship between finance and credit and business, assuming that if the State pays up its debt every pound of the payments is lost to industry, and is a destruction of the credit of the nation. That is an absurdity.

The Times City Editor justly remarked :

Mr. MacDonald made the capital blunder of denying an obvious truth. He asserted that such a measure would not cause a deflation of credit. Mr. MacDonald thinks that the sum of £3,000,000,000 could be extracted from the pockets of the more wealthy taxpayers and transferred to the pockets of holders of this amount of debt ; and that nothing would be changed except that interest no longer would be payable on it. If the problem were as simple as that every one would be in favour of a capital levy. Unfortunately, it is not. Take the case of a trader whose wealth rendered him liable to a levy of £50,000, and who holds £50,000 of war debt. He would hand the War Loan to the Government, and the latter would in fact burn it. This man consequently would have £50,000 of securities less with which to finance his business.

Mr. Ramsay MacDonald is not the first to confuse the two distinct questions. Opponents of the capital levy never tire of pointing out that the destruction of £3,000,000,000 of war debt is a colossal measure of deflation. As one correspondent says, *apropos* of the above discussion, if individuals make payment of the 50 millions of levy in War Loan, " the Government would cancel this stock, and thus at once 50 millions less of potential credit would be available for the trade of the country." It should be obvious to every one that if the real measure of deflation is the complete removal of £3,000,000,000 from the credit structure it would, indeed, be " colossal " and, therefore, disastrous, and this form and measure of the argument is so common as to be tacitly accepted by thousands of people. But is it true ?

I am opposed to the capital levy on a balance of its merits and demerits. I believe the balance of disadvantage to be a really substantial one. But I am for that reason the more sensitive that the arguments against it shall not be exaggerated, for it is only by a moderate, balanced statement of a sound argument, or a correct representation of a fact, that objectors to the scheme can expect to command the acceptance of argument and fact by its partisans. If the object of the argument be to convince the genuine thinkers (as distinct from impressing the gullible) the disadvantages of over-statement are obvious.

To what extent, then, will the payment of £3,000,000,000 be actually a measure of deflation? I do not here refer to the lowering of the Stock Exchange prices, through panic, but only to the problem automatically raised by the annihilation of this sum as a basis of credit, without the accompaniment of psychological magnification. I desire, in simple economic terms, to examine, a little more closely than has hitherto been done, where the truth probably lies between the two extreme views.

It is just as well to remind ourselves of recent experience on what makes for inflation or deflation and what does not. The doctrine that inflation follows upon any addition to effective purchasing power if there is no corresponding addition to the goods to be purchased, was well exemplified during the war. In that case there was already practically a maximum possible production, and, therefore, it could not be said that the effect of inflation would be to induce a multiplication of goods. When people were induced to subscribe to War Loan by raising loans at the bank, either on the security of the loan itself or other collateral, it depended upon their subsequent behaviour whether inflation resulted or not. For if they troubled to forego consumption themselves, or "save money" to repay the bank loan, at about the same rate that the Government spent the money borrowed, then the total exercise of spending power competing against the available stock of commodities was no greater than before, and inflation did not ensue. But if they lived up to their incomes, and did not save rapidly, then the total purchasing power competing for the available stock was increased. For they, themselves, were still *trying* to get the old supply of commodities and had also enabled the Government to enter the market to compete with themselves for that supply, so that in this case inflation ensued and prices rose.

Speaking broadly, if a man possesses £1,000 in railway shares, and the certificate lies in his box, it represents only a *title* to certain property, and could be burnt without affecting business or purchasing power at all. But if he lodges it at a bank as security for an overdraft, it begins to perform another function. Banks are giving such overdrafts or putting out new purchasing power in excess of purchasing power foregone by others by way of deposits, and as soon as they increase the *extent* to which this is done, a net increase to existing purchasing power has been granted and *ceteris paribus* inflation begins. There are probably differences in its dynamic influence on production according to whether the overdraft is used for a single demand such as the construction and purchase of a house, or whether it forms a basis of credit (statistically continuous, but consciously and periodically renewed) for a business purchasing and selling commodities which are consumed and replaced.

If, however, the destruction or loss of the railway scrip referred to above has deprived its owner of something which he has been using as collateral, and the credit given him upon it is no longer forthcoming and must be withdrawn, the reverse process of deflation ensues, and the volume of his business is contracted. The existing stream of goods, brought into being by forces of which the maintenance of the existing purchasing power is not the least important, finds itself faced with a reduced purchasing power, and prices fall unless in the remote event other persons owning unpledged resources happen or choose to use them, and so make the purchasing power up to its old level.

Now the payments to be made for discharging a capital levy will take various forms, and when the holders of War Loan which is redeemed or bought by the Government receive payments on that account from the Government they also will have various ways of disposing of the funds. These two varieties will have differing results upon the question of deflation. On the one hand, individuals only will be called upon to *pay* the levy, though they will call to their aid banks, the Stock Exchanges, and corporate institutions. On the other hand, the holders of War Loan which will be taken up include individuals, banks, trustees, and companies of all kinds.

The following is a broad classification, for my present purpose, of the individual payers of the levy :—

Individuals (including in effect small one-man companies) possessing :

1. *War Loan :*
    - (*a*) Unpledged
    - (*b*) Pledged — (i.) For trading purposes; (ii.) For non-trading
      and possessing also other unpledged securities ;
    - (*c*) Pledged — (i.) For trading purposes; (ii.) For non-trading
      and possessing no other unpledged securities ;
2. *Other Securities :*
    - (*a*) Unpledged
    - (*b*) Pledged to the full — (i.) For trading purposes; (ii.) For non-trading
    - (*c*) Not pledged to the full — Do.

. *Cash.*

4. *Property :*
    - (*a*) Mortgaged ;
    - (*b*) Unmortgaged.

Where the levy is paid in War Loan, we will assume that that security (or some equivalent of war debt more convenient for redemption for which it is exchanged by the Government) is ultimately cancelled. If its owner has not been " using " it in the sense above—Case 1 (*a*)—there is no deflation in the process of cancellation, or only deflation of a remote and minute order—a mere reflex action. But even if he has been using it, deflation may not necessarily ensue. As the basis of an overdraft used to hold further securities, it may give place to those other securities themselves being accepted, either as the basis of business credit or, as a secondary matter, to carry other securities. For instance, there are many overdrafts where the security given is War Loan because it is the collateral which is the most readily acceptable of the borrower's securities, but where it does not represent his whole resources—for he possesses other stocks and shares not being used, so far, as security for loans. As his "front line" is taken he may mobilise his reserves to take the place of the War Loan surrendered for the levy. The bank credit will not cease, it will be based on the second line, though, perhaps, requiring rather more ample cover on that account. (Cases under 1 (*b*) (i.) and (ii.) may not give rise to deflation at all.) If, however, his unpledged resources are inadequate to support as much credit, he may have, in the one case, to realise the new shares purchased and cancel the overdraft, or, in the other case, contract his business. (Cases under 1 (*c*) (i.).)

Where shares are realised in these circumstances some other person may, of course, raise a bank loan on hitherto unutilised collateral or on the shares themselves, in order to purchase them, in which case one bank loan merely replaces another, and neither inflation nor deflation results. (But there may be a slight tendency frequently to force down the price of the shares and thus lower the *extent* of the business credit given everywhere on the basis of such cover—a *general* deflation following the specific event.) Where business is contracted, goods are sold off probably at some sacrifice in price and not fully replaced.

It will be seen, therefore, that we must ask the question: "What proportion of the total sum proffered in War Loan will come from people who have been 'using' it, and who, at the same time, have no other securities in their locker to fill the place of the War Loan as cover?" This proportion will make for active deflation, but the balance will not.

Now we must deal with the people who pay by tendering approved securities, and we find that similar considerations apply. Those who are using such securities as the basis of credit and have no other second line to substitute will have their credit contracted (cases under 2 (*b*) (i.)) because of the shrinkage in their way, *viâ* the market, into the hands of individual companies and trusts which have been holding War Loan now bought up by the Government and cancelled. In the hands of these recipients the newly obtained securities will perform whatever office of supporting credit and loans the redeemed War Loan may have been performing hitherto—no more, no less. No economic tendency is set up at this point. We can, therefore, take the previous question and ask it in the following form : " What proportion of the total sum tendered for the levy in War Loan and approved securities will come from people who use the War Loan and securities as collateral for credit purposes in trading, and will not possess a balance of such securities (after paying the levy) equal to the cover required for their present activities ? "

It is probable that the total War Loan in the hands of individuals lies somewhat between £2,200,000,000 and £3,000,000,000. It is also probable that the total amount belonging to individuals liable to the levy could not exceed 70 per cent. of this,[1] say, £1,500,000,000 to £2,200,000,000. (The common guess that £1,000,000,000 out of a £3,000,000,000 levy would be paid in War Loan direct is consistent with this, since there would be many reasons why the whole of the holding would not be required to be handed over.) It is a matter, of course, not of precise statistics but rather of individual predilection to state how much of the £1,000,000,000 would fall within the answer to my question above. But I should be surprised if it exceeded £400,000,000.[2] The further estimate for securities generally would, in my judgment, certainly not be greater than this.[3]

The next method of payment is by cash. Few people keep enough cash in their till to make a levy payment. Payment may be made either by drawing on existing deposits, or by raising bank loans or mortgages ; or by selling off securities ; or by selling off trading commodities, which, by handing over the proceeds without replacing such goods, contracts the volume of business. In the first place, what is the effect of reducing bank deposits ? It is necessary to consider what use the Government would make of the new cash resources. Probably their first use would be to repay Treasury bills to the banks and others, and also the various stocks with early

[1] Later evidence suggests this is rather low.
[2] I should now put this lower.
[3] After considering the available evidence, *e.g.*, especially House of Commons Paper 102 of 1920, Appendices.

maturing dates. In the case of a deposit withdrawn by cheque, the bank's liability to its depositor is reduced by a given sum and its assets by a corresponding withdrawal and cancellation of a Treasury bill.

If putting its depositors' money into a Treasury bill were the only function performed by the bank in this case, neither deflation nor inflation would result. But it is not. In so far as the superstructure of *general* banking credits moves with the total deposits (cash remaining the same), there must inevitably be some curtailment of all that business directly linked thereto by the sensitive regulator of the proportions which other banking factors must bear to advances, to preserve the balance of liquidity and in order that depositors can be properly met if they withdraw their deposits. (Admittedly, this view is not held by all.)

One may estimate the amount held by the banks in forms suitable for redemption at, perhaps, £500,000,000 to £600,000,000, and, if the cash received by the Government is used to take up a considerable proportion of this, the shrinkage in advances may be important, though it is, indeed, possible to exaggerate it. It is important to observe that so far from money getting "back into trade" by this process, the contrary happens, and credit shrinks.

But what happens when the Government redeem the bills and securities held by *non-banking* holders or private individuals? These holders become possessed of cash instead of stock, and part of their existing advances is repaid. It does not follow, therefore, that the whole of the cash withdrawn from deposits to pay the levy will take a finally deflationary course. The deflation process is almost restricted to that body of securities held by bodies whose function is to make credit facilities out of it, *i.e.*, the banks. It is obvious that the more extreme consequences of the levy, following the cancellation of floating debt, would be obviated if the Treasury adopted a policy of leaving the existing total of bills intact, and devoted their cash proceeds to the purchase of other forms of debt.

There will be a great demand for mortgage advances—which directly or indirectly would mean bank advances—to provide cash for the levy. Roughly, the final recipients of this cash, the holders of the redeemed stock, provide the funds for this process by banking that cash. It is not to be supposed, however, that all the people with free funds to handle, on selling their War Loans to the Government broker, will necessarily want to have bank deposits or mortgages, and I have indicated elsewhere that a shifting must take place in the relative values of different classes of securities owing to a strong demand for that gilt-edged type of which the supply will have actually been cut down. In a similar way, on the sale of securities by a payer of the levy, some buyer is provided with equivalent funds by the Government and no important mechanical deflation results. The case of the definite liquidation of trade stocks is more involved. It is a depletion of trading wealth in the individual business working on its own capital, and there must be much friction (unless the special provisions for instalments are very widespread) before the new free funds in the hands of, say, a trustee holding War Stock, can reach such a business as a loan, *viâ* the banks or similar channels, having regard to the fact that the business may be an untried borrower, have no good collateral, and be trading on a falling market. The funds in the whole range of individual businesses must of necessity suffer marked contraction.

I find it convenient to classify the deflationary effects, therefore, in four orders :—

1. *Primary or automatic deflation* due to the final removal of a definite proportion of the basis of existing credit.

2. *Secondary or consequential deflation* due to the influence of the first deflation in reducing the money value of *remaining* collateral cover for credit (in stocks or goods). This would cause a slight general tightening of credit limits and margins. Included in this effect is the fact that, value for value, the second line of securities which would be partly mobilised for collateral would have (in individual cases) less proportionate potency as cover. An overdraft might be agreed up to £9,000 on £10,000 of War Loan, but cut down to £7,000 on £10,000 in value of industrial ordinary shares.

3. *Disturbance deflation* due to maladjustment in the

demand and supply for new securities of different types. It is one thing to show that for every £1,000 of shares on the market seeking a buyer, there is £1,000 of recently freed buying power. Equivalence in amount is not equivalence in kind. There would be a stiff demand for securities of a kind to replace those cancelled, whereas the supply will be mainly of sound but little-known industrials, stocks with narrow markets, which must suffer, and so reduce the general credit basis.

4. *Psychological Deflation.*—If individuals become nervous through the deflation resulting from the foregoing causes, and general distrust sets in, their mental processes will carry the preceding effects far beyond the point arithmetically or automatically necessitated. A stampede is no less effective or dangerous because the size and ferocity of the oncoming pursuer is somewhat exaggerated by the pursued. A second class of psychological deflation would be due to lack of confidence in political conditions.

While I am of opinion that the defects of automatic deflation under the two first heads have been frequently exaggerated by the opponents of the levy, for it could not reach more than one-half of the total sum payable outright as levy and, in my judgment, it may not *necessarily* attach to as much—not more than £1,000,000,000[1]—I think the deflation necessitated under those heads would have a very appreciable effect in contracting business and employment. The greatest danger of that effect is, however, not so much in its own extent as in the favourable environment it affords for the rapid spread of the fourth class of deflationary influences.

In conclusion, a reminder is desirable that any relief from the burden of the debt, which is obtained by an operation entailing deflation, must be appreciably offset by the fact that the *remaining* debt is made more burdensome to repay on that account than it would otherwise have been.

[1] Later reflection would lead me to reduce this maximum.

IV.—Its Effects upon Future National Revenue.[1]

The Levy and the Price Level.

One of the virtues of a levy is that in reducing expenditure upon interest forthwith it will release funds derived from the present rates of taxation in future, so that they can be applied either for reduction of taxation, or for social expenditure. Another virtue is that it will repay debt at the present level of money values, so that repayment will come easier to the nation as a whole than gradual repayment at some future time when prices are lower, and when the real burden of the repayment, measured in production, would be correspondingly higher. Now in the latter case the advantage of the levy would exist even though the present money payment of taxation in anticipation of capital repayment is no less than the money taxation that would have to be paid in future—indeed, the present money payment might actually be somewhat greater than the future money payment for which it is substituted, and there might still be a net advantage in the real burden of repayment through anticipation. But this depends entirely upon prices falling after the levy. If prices are not less, then the point about repaying at a different and more difficult level falls to the ground. We are left then to show whether a levy would give a net advantage in actual money payments on revenue account—that is, whether it would "pay its own keep" and yield a surplus, and, if so, how much. Suppose the levy saved 100 millions of expenditure on interest, but made such inroads into taxable wealth that even with the old rates of taxation the revenue fell off by 100 millions, then there could be no reduction of taxes and no increased social expenditure, and the levy would certainly be voted as "not worth while." But suppose the inroads into taxable wealth reduced the revenue by 50 millions, thus giving only 50 millions for reduction of taxation—*i.e.*, suppose half the levy had to be devoted to repairing its own damages, would it then still be worth while? There must be a point at which such an experiment, though

[1] Lectures given at the University College, London (Newmarch Lectures, 1923), and to the Royal Philosophical Society, Glasgow, October, 1923.

highly difficult, may begin to be a game worth the candle, and below which it is not. What, then, is that point ? It is obviously a matter of vital practical interest. We are told by advocates that the changes in taxation would encourage industry, and thus improve national wealth, but opponents say that industry and saving would be demoralised. I have dealt elsewhere [1] with the extent to which we may expect the burden per head to be reduced by increasing wealth. The contention is an old one. Quesnay said :

> Que le gouvernement soit moins occupé du soin d'épargner que des opérations nécessaires pour la prosperité du royaume ; car de très grandes dépenses peuvent cesser d'être excessive par l'augmentation des richesses.

The Effect upon Static Distribution and National Revenue.

Let us ascertain what the automatic effects of the levy would be upon taxable wealth, supposing neither tendency for changes to exist. The first principle of the inquiry must be to examine action and reaction on their main lines, without the influence of later dynamic tendencies which the levy or the repayment might set up.[2]

Not many attempts have been made to estimate what a levy yielding £3,000,000,000 would do in the way of reducing taxation in subsequent years. Mr. Arthur Greenwood in the *Observer*, in December, 1922, said that we should lose in income tax on the income from capital handed over in payment of war debts not exceeding £50,000,000 to £66,000,000, which would include the super tax. He also went on to say there would be a loss of another much smaller sum in death duties on capital paid by way of levy, and in the loss and reduction of tax on incomes below £500.

A writer in the *Highway*, in April, 1923, went into it in considerable detail and with much acuteness, making the loss on income tax £35,000,000 and on super tax £27,500,000 (or £62,500,000 in all), and in the death duties £20,000,000, so that we get the total effect, £82,500,000. Deducting this from the relief in expenditure, which he estimates at 140

[1] "Wealth and Taxable Capacity," Chap. IV.

[2] These will be favourable to the levy method if the converse tendencies to high taxation (*vide* p. 82) outweigh others (*vide* p. 237).

millions, there is a net sum annual available of 57½ millions. Dr. Dalton also goes into the same matter in some detail, and introduces many finer points. He reckons on a saving in the interest charged of 142 millions, and says that as regards income tax, at first sight the loss would be equal to 5*s*. in the pound on this 142 millions, *i.e.*, the 35½ millions, but this, he suggests, is an over-estimate, because no income tax will be lost through the cancellation either of 4 per cent War Loan, which is free of income tax, or of the debt to the United States Government. These two forms of debt amount to 1,150 millions. Assuming this to be cancelled in the general proportion to other debt, the cancellation of 39 per cent. of this would account for 448 millions and a saving of interest of 22 millions a year. Five shillings in the pound on this is 5½ millions, which reduces the loss of income tax to 30 millions a year. Then he says: "If it were decided to pay off more than a proportionate part of the American debt, using the bulk of the cash proceeds of the levy for this purpose, the loss of income tax would be still further reduced." In the same way he says that no income subject to super tax will disappear as a result of repayment of external debt, and when dealing with the death duties remarks that "in so far as no property subject to death duties will disappear as a result of repayment of external debt, the gross estimate must be diminished." In all, he estimates the loss of income tax at £25,000,000 a year; super tax at £33,500,000; death duties, £13,500,000, making a total of £72,000,000 in the year. Deducting this from £142,000,000 leaves a balance of £70,000,000 a year on the right side, available for reduction of taxation, etc.

The Saving in Interest.

Let us look a little more in detail at this problem of the repayment of external debt, assuming that we can still in some way, now that the present funding arrangements have been made, make premature or early repayment. We can look at the loss to the Exchequer in taxation from the taxpaying side, viz., at the simple fact that £3,000,000,000 will have been taken from the fortune of individual taxpayers, and that, therefore, there must be a corresponding reduction in their returns of capital and incomes for taxation for succeeding years. Or we can take the other side, as Dr. Dalton does, and look at what the expenditure of the money raised by the levy achieves. What taxable wealth has, in fact, disappeared? He looks to the debt that has been redeemed, and says, in effect, "this is all that has actually ceased to exist, and all the other kinds of wealth, though probably redistributed amongst individuals, still remain in existence." These two methods of approach lead to widely different results. Which is correct? First of all, there is no suggestion that the levy extends to anything beyond individuals resident in this country upon their total wealth, whether it be situated here or abroad. There is no suggestion, for example, that any part of the levy should apply to the wealth of an American, and in so far even as his wealth exists in this country, it might prove a very fatal policy to make such an extension as this. That being the case, the whole of the levy has to come out of the fortunes of individuals resident here, and nothing can efface the plain fact that, from that point of view, the returns of those residents for death duties and for income tax must be correspondingly reduced. Where, then, is the reconciliation of these two points of view?

If the British Government redeems the debts due to an American citizen, it must do so in one of three ways. Either it pays in cash, or it gives him in exchange some securities from Great Britain, or, thirdly, it may give him some securities that at present we hold in this country but that originate abroad, such securities, for example, as foreign railways that might have been handed over to the Government as part payment for the levy by some individual taxpayer. In one of these three ways it would seem that the American would get something in exchange for his present security. The foreign security at present pays income tax, because, on receipt of the income in this country, tax is deducted. If the yield of interest is now deflected from India or from some foreign country to the United States, then no British income tax will be payable, the security will disappear from our tax-paying assets, and this, therefore, will be a loss. If, however, the security transferred to the American is something "arising" in this country, do we then still get the income tax thereon? It may be assumed that when the shares have changed hands income tax can be deducted from the American as it has been deducted from the British resident. If this is the case, then are we to suppose that an American who was entitled to £100 net before the debt was redeemed—because, after all, the debt was free of British income tax so far as he was concerned—will now be content with £100 *less the income tax*, that is to say, the income of £100 gross, £75 net derived from other securities in this country? It is obvious that it will be impossible to make him bear any income tax even in theory, because he would take care to get, in the terms of the exchange, such a return of capital and interest as would leave him no worse off than before. This means that the payment of income tax is thrown back upon this country, by making it necessary to give him securities yielding £133 of gross income in exchange for his present £100. It will be seen how impossible it is for a country to tax another by way of income tax when it is a borrower, if the reports made by Professor Seligman and myself to the League of Nations on double taxation are studied. There may be all the appearance of taxation, but there is no actual economic reality in it. The tax is actually borne by the country imposing it. Obviously, in this case, if Great Britian were to deduct the tax she would have to give a correspondingly larger capital sum for the present nominal capital value of the American debt. As a matter of fact, however, the American debt is a Government debt and, therefore, the deduction of tax by the British Government from the American Government would be all the more difficult. In the first case, that of a payment of cash, if such a payment on any large scale were possible, the cash would be a deliberate drain from this country, and if the cash had formed—as we should assume that it had formed—a part of the business assets of the country, it would diminish profits and incomes like the withdrawal of any other assets, since it has played its part in the past as actual productive capital. Thus of the three alternatives: one transfers bodily a foreign asset paying income tax to a foreigner, and cuts this country right out of any claim for further tax; the second amortises the tax into a higher burden of capital repayment, and, therefore, if we lessen the loss by taxation, we also lessen the saving in interest—we certainly cannot achieve the same result as the redemption of British debt and also secure ourselves against losing the tax. The third method is a diminution of actual physical earning assets.

In the case of super tax, similar arguments apply, except that they are stronger, because even though we may deduct income tax from dividends payable to foreigners, and *appear* to thrust it upon them, it is very rarely indeed that we can get super tax; and, in any case, it is not super tax that is due upon the *total incomes* of the individual recipient, as it was upon the original owner of the security who transferred, but it is only super tax upon the amount of income *arising* in this country and going to that individual abroad upon which he would be theoretically liable. In so far as it is the American Government, of course super tax would not arise.

The Effect on Death Duties.

Now let us look at the argument as applied to death duties. If the American debt is redeemed in cash, there is so much less cash to pass through the death duty department in the reduced fortunes of the payers. If foreign securities are transferred in exchange for the debt, obviously no British death duties would arise in future upon them and that would be a complete loss to the Exchequer. If, then, British securities are sent, could we secure that American citizens pay death duties upon the shares they might hold in British companies whenever such citizens were to die? As a matter of fact, however, as the securities would be owned by the American Government, and that Government does not die within the meaning of the death duties, no death duties could arise there. But anyway, are they going to accept, in lieu of their present security free of such a British tax, a new security burdened by it? Again, only very low rates of duty would be payable instead of high rates, in any case. It is a fallacy, therefore, to rely upon the disappearance (from the assessable total) of the British debt that has been redeemed, which was giving rise to income that is taxed, as a test, and to say that, in consequence, the loss of revenue is confined to such British redemption. That is not the only thing that has gone, because something has to be given for the American debt—something which we can no longer get the tax upon, such as foreign securities or home securities of all kinds. By looking at it in this way, therefore, we reconcile the two points of view. Clearly the straightforward method of approach is to regard the actual diminution of the fortunes of the payers for their subsequent taxation as the clearest lead towards finding out what the effect upon the revenue will be.

In the usual approach to this subject, investigators have been content to estimate on the following lines: A sum of £3,000,000,000 will disappear from individual fortunes liable to estate duty; this represents, say, an effect of one-thirtieth each year, so that the diminution in annual capital under charge will be £100,000,000. The average rate of estate duty payable on estates over £5,000, measured by the total duty on their capital value, is 12½ per cent., so that £12,500,000 will be lost annually. To this is added the loss in legacy and succession duties. But this method quite ignores the fact that the 3,000 millions levy is not drawn in *proportion* from all the classes or levels of fortunes—the £1,000,000 class is more heavily depleted than the £10,000 class, so that the class liable to 30 per cent. estate duty suffers a much greater depletion than the class liable to 5 per cent. estate duty. If the loss in capital values is 100 millions annually, that loss will not be spread over the whole range in proportion to the amount of fortunes in each group. We must work out the loss due to the levy in each group of fortunes, and then take the estate duty on that loss in each group at the appropriate rate. If we do this we find that, spreading the loss of capital values of £100,000,000 in the proportions in which the levy would work over the several classes of fortune, the loss in estate duty would be 18½ to 19 millions instead of 12½ millions by the rougher method.

But estate duty on the amount taken as levy is not the only loss. An estate of £2,200,000 is liable to duty at 40 per cent., or £880,000 duty. But the levy takes 55 per cent. of this fortune of £2,200,000, or £1,210,000, and reduces it to £990,000 for the future. This amount, *when it becomes an estate*, is liable at 28 per cent. = £277,200, or a loss of £602,800 in estate duty. This loss is made up of—

40 per cent. estate duty on the levy payment £1,210,000	£484,000
Difference between 40 per cent. and 28 per cent., or 12 per cent. on the net remaining fortune, £990,000	£118,800
Total	£602,800

A similar loss, less extensive in amount, occurs all down the scale, due to the lower scale of rate chargeable. Allowance is made for both kinds of loss in my computations. But in my judgment this is not a true test of the loss in estate duty at all. If an estate of £1,000,000 is reduced to £400,000 by the levy, then not only is the reduction greater than in the aggregate of ten estates of £100,000, but the loss of estate duty when it comes is, of course, greater again, because of the higher rate of duty on the large estate. But suppose the loss on the £1,000,000 comes in five years' time, whereas the loss on the ten estates comes in an average of fifteen years, then the *present value* of that loss on the £1,000,000 is far greater. In short, we must make allowance for time, which means we must take age groups *for each* range of fortune into account. For statistics show clearly that the £1,000,000 fortunes as existing to-day will, on the average, come into charge for estate duty at a much earlier date than the ten estates of £100,000 each, so the present equivalent of the loss is again greater. The three factors all work in the same direction: (*a*) higher rate of levy on the larger fortune, (*b*) higher rate of estate duty loss on that higher levy, and (*c*) earlier maturity of that higher loss. The true way to look upon the effects of the levy on future taxation is to see how far is it a real additional tax, and how far a mere anticipation of future revenues and "spoiler" of the other progressive schemes.

We can measure the latter by asking: how much of the levy if set aside at interest will produce a sum which, applied annually, will make good the annual deficit in estate duty below what the estate duty might otherwise have been? To this extent, or to the extent of the foregoing of interest on that sum, or the present revenue use of the sum set aside, the levy is a mere anticipation of ordinary revenue. Why is the question of age-grouping important? Because wealth tends to become concentrated in the hands of the older people. Those of you acquainted with the statistical inquiry into the "multiplier" will be familiar with this fact and all it involves.[1] For example, in 1920–21 the estates of £20,000 to £25,000 which fell into estate duty were—

"Nil" up to 25 years of age.
2 between 25 and 34.
21 from 35 to 44 years.
45 „ 45 „ 54 „
84 „ 55 „ 64 „
158 „ 65 „ 74 „
198 „ 75 and over.

This is, of course, no test of the relative numbers of such fortunes in the age groups of all *living* people, because obviously the death rate amongst the people over seventy-five is much higher than the death rate amongst those of twenty-five to thirty-four. Now if we set out a table from the estate duty statistics showing not merely the amount of capital coming under duty in each "fortune-group" in a year, but also how each fortune group is split up in "age groups," we can compute therefrom, with a sufficient degree of accuracy, how the fortunes of the living are distributed, for the death rates of each age group are approximately known through the Registrar-General's figures. We know that for every person aged twenty to twenty-four dying in a year there were, approximately, 313 living, and if death is impartial in its toll the fortunes of all living people at that age will be 313 times the fortunes of those dying. In the

[1] *Vide Journal of the Royal Statistical Society*, 1915. "British Incomes and Property," pp. 407 *et seq.*

same way, for each person from sixty-five to seventy-four years dying there were, approximately, seventeen living. In this way a double table of "living fortunes" can be arrived at. The appended Table A, based upon the 1921 returns, shows how £100,000,000 of total levy would be split up. The table is built up thus :—

1. The actual sums falling under the estate duty in the Report of the Commissioners of Inland Revenue are taken. This applies to England and Wales only.

2. These sums are multiplied by the ratio of living to dead in each age group in the selected class (as used in the last computations for the "multiplier"). It is not known yet whether these have now changed to any important extent, but it will be found on experiment that even a considerable change will not greatly affect the final results, and if the change is in the direction we consider likely, it is probable that up-to-date figures will increase the density in the low right hand corner.

3. From the total fortunes in each group the levy yield on each group at the rates suggested in the most recent scheme is computed.

4. The total yield for this particular set of fortunes is £1,579,406,000. The absolute amount does not matter; the question is: how is any sum that may be raised actually spread over the fortune and age groups?

5. This total yield is equated to 100 in order to get—

(*a*) The last vertical column showing the percentage of the total yield raised from each group of *fortunes*, and

(*b*) The bottom horizontal line showing the percentage of the total yield raised from each group of *ages*.

You will see, then, how a levy of 100 millions falls upon these groups; 77·7 millions would be paid by people over forty-five or 58·5 millions by people over fifty-five. Put another way, 61 per cent. would be paid by fortunes over £100,000. These computations show the loss in estate duty *when it comes*, at the appropriate rate for each class of fortune. The aggregate loss is 225 millions per 1,000 millions of levy. If we take the fortunes over £100,000 the loss in estate duty is 287 millions per 1,000 millions of levy. But this loss will

Table A.

Table showing how a Total Receipt of £1,579,406,000 on the Levy Scale would be Distributed.

Thousands omitted.

Class of Estate (Capital Value).	Ages.									Total.		
	15–19	20–24	25–34	35–44	45–54	55–64	65–74	74–84	85 and upwards.	Total Value of Estates.	Total Duty.	Duty in each class or percentage of whole.
£5,000 to £10,000	—	638	1,718	3,276	5,278	4,586	3,238	1,206	442	1,019,260	20,382	1·29
£10,000 ,, £15,000	1,344	1,120	4,914	9,394	13,454	11,564	8,421	3,262	966	777,806	54,439	3·44
£15,000 ,, £20,000	—	1,536	4,152	10,368	11,368	12,624	8,772	3,252	1,344	444,833	53,376	3·37
£20,000 ,, £25,000	—	—	2,120	11,295	15,675	13,485	11,370	4,440	1,560	399,551	59,945	3·79
£25,000 ,, £30,000	—	—	—	8,687	6,936	11,696	10,251	2,754	1,666	247,029	41,990	2·65
£30,000 ,, £40,000	—	—	3,970	9,300	21,840	20,760	16,660	6,940	2,320	410,015	81,790	5·78
£40,000 ,, £50,000	—	—	3,450	7,935	13,041	17,756	19,458	7,659	2,552	312,414	71,851	4·54
£50,000 ,, £60,000	—	7,410	4,212	16,016	6,838	13,702	14,560	4,862	2,262	268,725	69,862	4·44
£60,000 ,, £80,000	—	8,848	—	—	34,356	34,552	11,278	10,500	2,576	394,794	102,110	6·46
£80,000 ,, £100,000	—	—	—	899	19,530	19,623	17,267	7,037	3,906	220,238	68,262	4·32
£100,000 ,, £150,000	—	24,582	15,810	17,850	44,200	59,194	42,908	14,932	6,188	663,733	225,664	14·28
£150,000 ,, £200,000	—	7,067	—	31,709	12,210	32,560	19,388	6,512	5,254	309,999	114,700	7·26
£200,000 ,, £250,000	—	2,242	646	12,008	9,006	28,386	10,602	5,472	1,862	184,907	70,224	4·44
£250,000 ,, £300,000	—	—	3,400	2,240	1,680	1,587	6,920	3,080	1,160	44,994	18,920	1·19
£300,000 ,, £400,000	—	5,371	6,765	39,442	24,313	10,168	14,842	6,314	7,585	280,043	114,800	7·26
£400,000 ,, £500,000	—	—	5,289	6,708	51,213	14,835	1,161	5,547	1,290	200,100	86,043	5·44
£500,000 ,, £600,000	—	—	3,600	42,930	—	1,350	10,080	3,645	1,755	140,916	63,360	4·01
£600,000 ,, £800,000	—	—	—	—	3,290	11,092	11,515	5,459	705	52,875	28,341	1·79
£800,000 ,, £1,000,000	—	—	—	343	11,123	15,043	8,575	294	6,566	85,644	41,944	2·65
£1,000,000 ,, £1,500,000	—	—	—	—	255	11,118	27,132	27,591	7,752	144,843	73,848	4·67
£1,500,000 ,, £2,000,000	—	—	—	455	—	27,961	33,655	—	143	115,838	61,828	3·91
£2,000,000 ,, £3,000,000	—	—	—	—	—	—	4,345	—	26,070	55,330	30,415	1·92
£3,000,000	—	—	—	—	—	—	25,144	513	—	44,535	25,312	1·60
—	1,344	58,814	60,046	230,559	305,566	372,495	337,542	127,206	85,834	6,818,422	1,579,406	100·00
Percentage of whole sum raised	0·8	3·7	3·8	14·6	19·3	23·6	21·2	8·05	5·5	—	100	—

come earlier for the older groups. Let us fix each loss at a period representing the average "expectation of life" for each group, as given by the mortality tables. Now we have to ask how much set aside now will amount at say, 4½ per cent. compound interest, to the loss for each age group, when it falls due? This is shown in the next table (B).

The processes for this table are:

1. The loss of the fortune due to the levy gives rise in due course to:

(*a*) A loss of estate duty upon that amount.

(*b*) A loss of estate duty on the *remainder* of the fortune owing to it coming into a lower class of duty.

2. The aggregate of (*a*) and (*b*) above represents the loss when it comes and is shown for each age group.

3. The expectation of life of each age group is obtained.

4. The present value of each loss on a 4½ per cent. table is computed.

5. The aggregate present value of the future losses over the whole table is known.

6. On a total levy of £1,579·4 millions, the primary loss is £283·7 millions, the secondary £71,000,000, together £354·6 millions, with a present value of 224·1 millions. Reduced to terms of 1,000 millions of levy, this amounts to 142 millions.

The "present cost" or "present value" of each group is thus aggregated, and the total present cost of the loss in estate duty for every 1,000 millions of actual levy is found to be 142 millions. Now I have ignored the legacy and succession duties. These amount to £6,500,000, where the ordinary estate duty yields £40,500,000. The foregoing process of calculation is not precisely applicable, and the loss is best measured by assuming that the capital fund chargeable to these duties under each degree of relationship will be diminished by a percentage equal to the percentage of the total fortunes taken by the levy. This brings the £225 loss up to £261 per £1,000 (or £333 per 1,000 for fortunes over £100,000), but it is subject to the same "age group" effect, bringing in the larger cases first, and falls to be increased in a like ratio. The total

TABLE B.

Loss of Estate Duty through Levy of £1,579,000,000.

Class of Fortune.	AGE GROUPS.									TOTAL.			
	15–19	20–24	25–34	35–44	45–54	55–64	65–74	75–84	85 and upwards.	Loss on Levy.	Loss through Change of Scale.	Total Loss.	Present Value.
£ gross £ gross.													
5,000 to 10,000	—	24	68	132	212	184	128	48	20	816	—	816	503
10,000 ,, 15,000	65	55	245	470	670	580	420	165	50	2,720	—	2,720	1,437
15,000 ,, 20,000	—	90	246	624	678	756	528	198	78	3,198	—	3,198	1,793
20,000 ,, 25,000	—	—	266	1,431	1,987	1,709	1,442	560	200	4,200	3,395	7,595	3,609
25,000 ,, 30,000	—	—	—	1,120	891	1,508	1,116	350	217	3,352	2,050	5,402	3,224
30,000 ,, 40,000	—	—	519	1,209	2,836	2,703	2,160	898	310	7,153	3,282	10,435	7,120
40,000 ,, 50,000	—	—	455	1,055	1,747	2,374	2,592	1,027	335	7,180	2,405	9,585	6,212
50,000 ,, 60,000	—	1,025	582	2,215	943	1,897	2,020	667	317	7,678	1,988	9,666	5,361
60,000 ,, 80,000	—	1,600	—	—	6,225	6,276	2,649	1,905	470	13,273	5,852	19,125	11,837
80,000 ,, 100,000	—	—	—	168	3,598	3,616	3,190	1,292	732	9,548	3,038	12,586	8,607
100,000 ,, 150,000	—	4,644	2,984	3,364	8,346	11,180	8,301	2,813	1,170	33,840	8,960	42,800	23,310
150,000 ,, 200,000	—	1,620	—	7,326	2,720	7,533	4,482	1,500	1,203	20,528	5,856	26,384	15,263
200,000 ,, 250,000	—	588	160	3,184	2,388	7,532	2,812	1,456	500	14,040	4,580	18,620	11,431
250,000 ,, 300,000	—	—	982	642	491	156	1,999	897	304	4,307	1,164	5,471	3,548
300,000 ,, 400,000	—	1,608	2,020	11,728	7,228	3,032	4,408	1,876	2,260	27,552	6,608	34,160	18,135
400,000 ,, 500,000	—	—	1,605	2,027	15,512	4,488	364	1,667	393	21,500	4,556	26,056	13,657
500,000 ,, 600,000	—	—	1,112	13,254	—	402	3,122	1,112	552	16,458	3,096	19,554	9,389
600,000 ,, 800,000	—	—	—	—	1,039	3,497	3,627	679	221	7,643	1,420	9,063	6,402
800,000 ,, 1,000,000	—	—	—	100	3,568	4,828	2,767	96	2,092	11,704	1,747	13,451	10,203
1,000,000 ,, 1,500,000	—	—	—	—	78	3,971	9,701	9,881	2,762	22,848	3,545	26,393	22,582
1,500,000 ,, 2,000,000	—	—	—	98	—	11,501	13,846	—	42	21,630	3,857	25,487	17,985
2,000,000 ,, 3,000,000	—	—	—	—	—	—	2,008	—	12,144	12,160	1,992	14,152	13,653
3,000,000 ,, —	—	—	—	—	—	—	11,656	100	—	10,140	1,616	11,756	8,864
TOTAL . . .	65	11,254	11,242	50,147	61,157	79,723	85,538	29,187	26,362	283,668	71,007	354,675	224,125
Present value . .	—	2,124	2,928	19,201	31,127	31,379	61,805	28,187	26,362	—	—	—	224,125

present value of the loss in the estate duties as a whole, is, therefore, £167 per 1,000 upon one devolution. Upon the next devolution or "occasion for duty," *commencing* as an average period, let us assume, some thirty-three years hence, there is a similar kind of loss; that is to say, in thirty-three years' time we shall be standing at the beginning of a fresh cycle of estate duty whose yield will be similarly reduced over that cycle by sums which then have a "present value" comparable with the figures above for the immediate estate duty cycle. The actual present value of that sum thirty-three years hence is about 39 millions, making a total of 206 millions, per 1,000 millions.

Further into the future it is perhaps unnecessary to peer, as the two cycles practically cover the nominal term of the War Loans. The total sum to be set aside out of the levy of 3,000 millions to make good its own effects upon the National Exchequer for death duties is, therefore, £618,000,000. Using the same rate of interest as we employed to get present values for the different periods, this is equal to an annual charge in perpetuity of some £28,000,000.

The Effects upon Income Tax and Super Tax.

Now let us examine the position of income tax and super tax. Dr. Dalton measures the income tax by the duty on the War Loan interest which disappears on redemption; all other sources of income being assumed to remain in being, though differently distributed. It is true that a taxpayer's income may be reduced by 7 per cent. on the capital given up if he gives up non-gilt-edged securities on payment. Thus his income will be diminished by a greater sum than the amount of War Loan interest redeemed. But the securities find a home somewhere in the hands of a person who has had War Loan redeemed, and his income may be slightly *higher* through the substitution. If the classes of payers and recipients are not widely dissimilar the effects should cancel out. The loss for income tax, therefore, may be taken at 4*s.* 6*d.* in the pound on the interest which is saved by reducing the National Debt by £3,000,000,000, estimated at £140,000,000 to £150,000,000 and put by Dr. Dalton at 142 millions. This duty amounts to about £32,000,000, or, allowing for the smaller incomes and certain special features, 31 millions as a minimum. The super tax is more involved. Dr. Dalton says:

> Next, as to super tax, the yield of which in 1921–22 was £61,000,000. The loss here is more difficult to estimate, owing to the graduation of the scale and other complications. In the two typical cases examined on pp. 45–46, the super tax payable dropped, as a result of the levy, from £87 10*s*. to £17 8*s*. in the one case and from £13,012 10*s*. to £5,619 in the other. The loss of super tax was, therefore, 80 per cent. in the one case and 56 per cent. in the other. As a rule, the larger the pre-levy income subject to super tax, the smaller the percentage loss of super tax through the levy, and in a weighted average of all relevant cases the average percentage loss will be considerably nearer to 56 per cent. than to 80 per cent. Let us put it provisionally at 65 per cent. But a figure arrived at in this way must be reduced for two reasons: First, because no income subject to super tax will disappear as a result of repayment of external debt, and, second, because no earned income will be directly affected by the levy, which will fall, roughly speaking, only on the sources of investment income. Of the income subject to super tax a considerable part is earned income, and the two cases taken above are not, therefore, really typical, since in the first there is no earned income and in the second earned income amounts only to £1,000 out of a total pre-levy income of £51,000. Allowing for these two deductions we may, I think, safely reduce our estimate of the percentage loss of super tax through the levy from 65 per cent. to 55 per cent. This will mean a loss of super tax of £33,500,000 a year.

The anonymous writer in the *Highway* assumes an average rate of yield on capital values (market basis) of 7 per cent. and finds a loss of £27,500,000. I have reworked for myself on my own distribution table the pre-levy and post-levy position in each class and find the loss to be between £10,500,000 and just over £13,000,000 per £1,000,000,000 of levy, or 31½ to 39½ millions for £3,000,000,000 of levy. For this purpose I took the actual reduction on each range of income. The range of difference is due to taking a higher and lower limit of the rate of yield per cent. on capital lost to the super tax afterwards.

I think the loss of 62 to 70 millions per annum for income tax and super tax together would tend to get less after a few years had elapsed, because if there had been no levy, the estate duty deductions (affecting subsequent income tax) would be greater in due course. The loss of these taxes due to the levy would be diminished or offset by a smaller loss than would have normally arisen on such greater estate duty deductions.

The Total Effect on Tax Yields.

But for some time to come, the total annual loss of duties would be in the neighbourhood of £90,000,000 to £98,000,000, and as the saving in revenue was put at about 140 millions the net gain lies between 42 to 50 millions. In other words, approximately two-thirds of the levy is wanted to "pay its own keep."

What we have endeavoured to work out is the extent to which the relief to the national expenditure obtained by cancelling the interest upon £3,000,000,000 worth of War Loan would be able to reflect itself in a lowering of the rates of taxation upon the body of wealth affected by the levy. The result of the above examination shows that if the rates are lowered to an extent which would reduce the yield by 50 millions (say, of the order of one shilling off the income tax) that is the utmost that could be done, having proper regard to the alteration in the taxpayers' incomes. Alternatively, if there is to be no reduction in the rates of taxation, there will be a surplus of 42 to 50 millions to be devoted to other objects. I have already said that one of the chief economic "legs" upon which the levy stands is the repayment of debt at a time when the price level is materially higher than at some later period, during which the real burden of repayment might be a much larger proportion of the total national income. I have remarked that if there is no confident anticipation of such lower prices, there is no special point, so far as comparative burden is concerned, in the question of capital repayment at any particular time. We are thrown back, then, upon the question of the burden of interest, and that resolves itself into asking whether, if the effect of the levy is automatically to lower the national revenues by an amount equal to the saving in interest, the experiment would actually be worth while. If, on the other hand, the yield of the taxes at existing rates would be only slightly altered, the proposition under this head alone would be an attractive one. At some intermediate point it would begin to lose that particular attraction, and I suggest that the figures I have given are not generally realised as being "automatic ravages of a levy." I do not wish these words to give rise to misunderstanding. All that they mean is the "automatic inroads" which the levy method, with its high rate of progression, would make into the "yield-capacity" of the regular progressive taxation on existing incomes at existing rates. In so far as progression in taxation is a cake, you cannot "eat your cake and have it."

I do not, of course, raise any question of *inroads into the real national wealth as a whole*. What happens is that we write down gross incomes nearer to their net value after taking into account gross taxation. If a part of everybody's taxation were earmarked as a payment for interest, and their other taxes were reckoned after payment of such interest, the position would be much clearer. Professor Cannan remarked to me:

> What is really meant is that 100 of the 142 millions would be remitted to the taxpayers because their nominal property and income would be put at a smaller figure, and only the balance of 42 millions would be left for reduction in the rates of taxation. It is all the same to me whether I pay a low rate on a given amount or a high rate on a proportionately reduced amount.

You can put it how you like, but if what we have to discuss are the *rates* of taxation with their dynamic effects later on, we must take the *rates* of tax upon specific amounts of income or fortune. Indeed, Mr. Arthur Greenwood expressly stated that it was the intention of the proposers of the levy to impose *higher* rates of tax than at present exist upon the larger incomes and fortunes in order to make good part at any rate of the general loss of revenue through the reduction of wealth all down the present scales; and the writer in the *Highway*, who has done such careful work upon this problem, reckoned that the increase in the rates necessary to make good the loss as he computed it, would be 75 per cent. for super tax and 83 per cent. for estate duty. If, therefore, we have at present a total rate of income tax and super tax upon an income of £25,000 a year, of 8*s*. 9*d*. on the whole or 10*s*. on the top portion, we have to fix a rate on such an income in future at 13*s*. on the whole and 14*s*. 2*d*. on the top portion in order to meet the intentions of the proposers. We know pretty exactly the kind of figures upon which we must reckon when we come to judge the *dynamic effects upon future saving* as the next feature of the problem.

With regard to the main stream of production, at present a large portion is deflected from the actual producers into the hands of present non-producers who gave us their services in the past, but who may, of course, also be acting now in the capacity of producers. The effect of the levy would not be that a smaller portion of the stream of production would be payable annually to these people as distinct from others, but that *all receivers* of interest on capital would have less. Some would have as great a relief in future taxation as the diminution in interest, but many would not. We should have made a certain small section perform a valiant operation which will prevent them from giving the same *proportion* of assistance to us in the future. If the levy were taken on a proportionate scale from us all, we should all reap the benefit of its effects, and be able to put a similar burden on the rich in future, but it is because under the progressive scale of the levy we throw the main burden upon a few, that we prevent these few from giving us the same proportionate help in the future. We can only make them do so by increasing the scale of rates that they have to contribute upon what remains to them. We are apt to forget that we cannot have the "benefits" of redistribution of wealth through taxation, without incurring also the liability to redistribute the future responsibility for saving *and for tax-paying* which was formerly borne by the wealth now redistributed. This is only one example of that general propostion. The cumulative effect of three highly progressive scales (levy, super tax and estate duty) is to take from the effectiveness of the second and third applications of such scales to the same fund of individual wealth. If it were considered that the same top fraction of the community with their reduced relative share of the total wealth, must still bear the old proportion of the total burden, while the other sections, with their increased relative shares of total wealth, must not bear any greater proportion of the total burden, then the rates of duty on that top section must be most strikingly increased. It is a question of arithmetical possibility even before justice or political expediency. An increase of rates of annual tax, as indicated above, would be necessary to achieve this, and as it is impossible in practice to differentiate between income from old wealth and wealth in the making, this would raise questions of the dynamic effect upon new saving of the highest importance to all sections of the community, and particularly to the increasing population of wage-earners dependent for their employment upon a corresponding increase of the instruments of production and capital accumulation.

I do not think it can be disguised that the cumulative effect of three highly progressive rates must be to take away from the effectiveness of the second and third applications of such scales, whereas we get into the habit of thinking that each can be applied with all its old vigour and productivity irrespective of what has gone before.[1]

The Total Yield of the Levy.

It may be said that the results of the calculations must be erroneous because the total sum raised by the levy, on the estate duty figures given, is altogether out of relation to the sum £3,000,000,000, which it is estimated the scales of duty chosen would raise if applied to the aggregated individual fortunes in this country. But I have not set out to ascertain the total national capital nor the total fortune assessable *as at the same period* for which these estates statistics were drawn, nor the distribution of the fortunes in classes—all of which would be required to establish or reject the estimate of £3,000,000,000 as the true yield of the

[1] One critic says that the simile that "you cannot have your cake and eat it" is wrong, because the cake is not eaten, only bitten. By this he, of course, means that no wealth is destroyed. But I was not on the point of real wealth at all. I was on the point of the taxable capacity of individuals relatively judged, and it is this cake which, by a high progressive system, tends to disappear. It is the power to put more and more burden upon a small section that becomes exhausted, and not the fund of wealth which is continually being redistributed in the process. The pertinence of this on the dynamic problem is a separate factor of great importance.

scale given. At the same time the result does seem to be a *primâ facie* indication that the scale in question, applied to existing individual wealth, would not raise as much as £3,000,000,000. This indication is erroneous if the multipliers that I have employed for getting the "living fortunes" are, *taken over all*, too low, as they may quite possibly be. But the use of multipliers which to-day are too low over all will not invalidate the computation I have essayed to make, viz., how an aggregate of individual fortunes of £x is split up into age groups; this result would only be invalidated if the separate multipliers in each class actually stand *to each other* to-day in a totally different relation from that given. An alteration, upwards or downwards, of the aggregate figure is a much more probable thing than any such radical change in the proportions of the parts as would materially affect these results.

The Question of Sinking Funds.

In computing the effect on the Exchequer receipts no notice has, so far, been taken of the sinking fund question. It will be said that the comparison to be fair must allow for the fact that if £3,000,000,000 is repaid outright, there will no longer be any necessity to put aside out of taxation any provision for sinking fund to repay this 3,000 million in future, and that this is a saving that must be added to the account. There are two difficulties in this line of reasoning. In the first place, the annual requirements for sinking fund are not specific or essential, but are arbitrary and accidental. We may, for political and other reasons, decide that we will put aside 10 millions or 100 millions or even nothing; in other words, that debt ought to be repaid in 100 years or twenty, or that it can be perpetual. We can look narrowly at the sum put by in any year in its saving or interest yield, as pure investment policy, or we can think of the encouragement of future lower taxes to trade, or we can think of the national credit in the event of new war burdens being necessary. The particular earmarked sinking funds have no significance in this connection—they might easily be greater than our real ratio of repayment because we might intend to reborrow partly at specific maturities. Such fixed provisions are important in relation to specific loans, but they tell us nothing about the real, essential, or "natural" annual burden of the whole debt. Still less is the general sinking fund policy of the moment any assistance. On account of the complete lack of specific information upon this point, I have not attempted to work it into the computation, nor is it in any way really necessary to do so. For, in the second place, the comparison I have endeavoured to make is one between "costs" and "savings." I could have postulated a definite term on both sides, but it would not have altered the relation between them. I have preferred to take the interest saving as if it went on in perpetuity, and the costs also in perpetuity, and here is a valid comparison. Suppose that the interest saved is £100 per annum, in perpetuity, no additional saving in annual sinking fund is appropriate. If it is for a limited term, because of a sinking fund, we can first compute the annual sinking fund, and then—having regard to the "in perpetuity" character of our costs on the other side of the comparison—establish the substantially less annuity in perpetuity which is equal in value to that terminable annuity. Then, second, the interest saving of £100 per annum through the levy is limited by a similar term and has a certain present value the perpetual annuity equivalent of which is obviously *less* than £100. These two perpetual annuities, equivalents of interest and sinking fund for a limited term, may or may not together equal the £100 saving per annum in perpetuity. But it seems unnecessary to complicate a fairly simple comparison by considerations so unmanageable and arbitrary, and I prefer to exclude the sinking fund element and compare a saving in perpetuity with revenue effects in perpetuity.[1]

[1] Of course, if it is thought that debt may be converted or reborrowed at lower interest rates in years to come, this method may really be overgenerous to advocates of the levy, the assumption of a perpetual saving of the present rates of interest being, to that extent, exaggerated. Suppose interest is 5 per cent. now and immediate repayment of £1,000 saves £50 per annum, whereas in a few years' time interest turns out to be 2½ per cent., and, by substituting £1,000 of new borrowing then, one can save £25 per annum without any capital repayment burden at all. Then, in that case, it is overstating the facts to say immediate repayment saves £50 in perpetuity.

THE WEALTH AND INCOME OF THE CHIEF POWERS (1914).

THE WEALTH AND INCOME OF THE CHIEF POWERS (1914).[1]

I.—Introductory Remarks.

In representing the wealth of nations as consisting, not in the unconsumable riches of money, but in the consumable goods annually reproduced by the labour of the Society . . . [their] doctrine seems to be in every respect as just as it is generous and liberal. . . . They have for some years past made a pretty considerable sect, distinguished in the French Republic of letters by the name of " Economists."—Adam Smith.

No apology is needed for dealing with this subject at the present time when the air is filled with discussions about national wealth, capital levies, indemnities and kindred questions. We are all familiar with the class of persons who profess to despise and distrust statistics and statistical methods. They are usually the first to rush to statistics when they are in trouble, and to use them without investigation or discrimination. While there is a very considerable literature upon this particular subject—running into many scores of works—it is extraordinary how the less responsible efforts, often mere partisan guesses, gain a footing and keep currency with serious and reasoned estimates. This arises partly from the fact that the partisan who is out to prove his point is nearly always best pleased by an extreme figure, and so we find that current estimates of the wealth of the United Kingdom (in 1914) used in polemical literature, range from £10,000,000 to £24,000,000.

At another moment the fickle user of figures seeks to prove that statistics of wealth have no real meaning, that they assume an impossible and sudden realisation of all commodities, that they omit certain items of well-being, and so on ; and because estimates made up on one particular principle

[1] Read before the Royal Statistical Society, May 20th, 1919, and reprinted (without modification) by permission of the Council, from the *Journal* of July, 1919.

are not really serviceable for every possible use, they are condemned as being useful for none. The very wide variations that exist in estimates purporting to represent the same facts—for the popular use of statistics dislikes all qualifications, and drops out all footnotes or definitions—is perhaps one of the chief reasons for the ultimate distrust. And yet, of course, proposals for progress in modern civilisation and solutions of its problems depend to an increasing extent not merely upon correct aggregations and classifications of numbers, but also still more upon methods of estimation, or statistical science as distinct from State arithmetic, in those fields where precise measurement or enumeration is not possible.

The uses to which estimates of national wealth and income may be put are many and various. They include:

1. Tests of "progress" by way of comparisons between different years, to show the accumulation of capital; tests of the distribution of wealth, according to the form or embodiment which wealth takes; of the effects of changes in the rate of interest, or in the value of money.

2. Tests of the relative "prosperity" or resources of different nations or communities, either as a whole or per head of the population, and in relation to their national debts.

3. Comparisons of income with capital and property.

4. Consideration of the distribution of wealth according to individual fortunes, and changes in that distribution.

5. Consideration of the applicability and yield of schemes of taxation, *e.g.*, the capital levy.

6. Questions relating to war indemnities.

It is in connection rather with the second, fifth and sixth classes above that the public mind is most exercised at the present moment, and a great deal of careful, as well as much careless, work has quite recently been done in this field of statistics.

It is, perhaps, hardly necessary to say that the capital wealth or income *at any given moment* is not a sole test of ability to bear indemnities—it is only a partial measure, and the potential wealth in ungotten minerals and resources, as well as the character of commerce and *distribution* of income, are important factors in the problem. It may, however, be pointed out that present values are on a very different scale from those which are being discussed in this paper, and the true money measure of present wealth can only be guessed at for some time yet.

II.—The Object of this Paper.

The objects of the present treatment of the subject are :

1. To review the great mass of recent work from different countries, and to select the most authoritative and careful efforts, presenting the main results for the British reader within the limits of a single paper.

2. To present those results in a uniform notation in currency, adjusted as at a uniform date, 1914, and to relate them as nearly as possible to like subject-matter for each country. The year 1914, as at the outbreak of war, represents the latest date for which satisfactory statistics are generally available. No useful work can be done on any later year, so great is the disturbing effect of war. As soon as stable conditions are again reached, and proper measurements can be made, not only will 1914 serve as a point from which to measure the effects of war, but it will also serve to show the *comparative* changes for different nations.

3. To subject the data and methods involved to careful analysis and criticism, so far as that may be possible. At present, estimates of every kind, good, bad and indifferent, pass muster together as equals. I shall endeavour to label them according to their probable degree of approximation to the facts, or rather, according to the extent I feel able to say that they cannot be inaccurate. Here I shall use the term " possible range of error " out of the ordinary signification attaching to " probable error," and to bear the following meaning :

The estimate under each detailed head is considered, and the extent to which it may possibly be deficient or excessive is judged by reference to the character of the data and the methods employed. The " minus " range of error is not always equal to the " plus " range ; as, for example, in the case of an aggregated valuation used for taxation, which is not nearly so likely to be excessive as it is to be deficient, in normal circumstances. All the "minuses" and all the "pluses" are then separately totalled. It will be obvious that as all the details are unlikely to err in the *same* direction, the final aggregate valuation is probably much closer to the absolute truth than this "possible range of error" would indicate, and the latter usually expresses a generous estimate for the *probable* error.[1] The determination of these percentages rests on no absolute or external criteria—they are purely subjective judgments of my own, and, therefore, the personal equation must be very prominent. There is, however, this one limit to that disadvantage—the *same* personal equation runs throughout all the estimates of error, and they are not the products of different observers. In order that some kind of relative value may be attached to the different estimates of national wealth, I have introduced for the purposes of my final table, in which they would otherwise appear as of equal reliability, a system of grading. Those cases in which the "possible range of error" is not greater than 10 per cent. of the whole estimate, are classed as Grade I. Those where it *may* be more than 10 but not more than 20 per cent. are called Grade II., and those similarly between 20 per cent. and 30 per cent. Grade III., while the mere "guesses" not based on recent broad data are put in Grade IV. An estimate that at the time might have been put in one grade may, so far as the final summary for 1914 is concerned, be re-graded in a lower category if in bringing it up to the level of 1914 further possibility of error is introduced. As this is the first effort of the kind, I offer every apology for its empirical and elementary character, but I think it represents an attempted advance in this realm of comparative statistics.

4. The final object—which, however, in point of arrangement comes first—is to discuss briefly the various methods that are available for the determination of national income

[1] While I should not care to give a precise expression for the *probable* error in these circumstances, I do not think it would ordinarily exceed $\frac{3}{4}\sqrt{p}$, where p is the "possible range of error," + or —.

and national capital, and their chief characteristics or limitations, for I feel that many readers may have but little information before them on this subject. I shall also add a brief and selected bibliography of recent work. An extensive list, down to 1913, is contained in Corrado Gini's great work, "L'Ammontare e la Composizione della Ricchezza delle Nazioni," enumerating some three to four hundred references, mainly for capital only. A good statement of recent contributions is given by Lanfranco Maroi in "Come si calcola e a quanto ammonta la ricchezza d'Italia e delle altre principali nazioni," while the official report of the Australian census has a list of about one hundred and thirty references.

I have included very few references to the earlier estimates in each country, however well known or valuable, for reasons of space. In the first place, the further removed they are from 1914 the more risky it is to "build" up on them to reach a figure for that date. In the second place, all competent investigators can be relied upon to make the most of the work of their predecessors, and to use it so far as it is valuable.

For reasons of space also, I shall not touch upon the measurement of progress in the different countries, or the comparative distribution of property and income, or to any extent on the proportions of capital which are represented by different classes of property. These topics may form in themselves suitable matter for further papers at a later date.

III.—General Observations on Comparisons in Wealth.

The nutrition of a Commonwealth consisteth in the Plenty and *Distribution of materials* conducing to life: In Concoction or Preparation . . .

By Concoction, I understand the reducing of all commodities which are not presently consumed, but reserved for nourishment in time to come, to something of equal value . . . and this is nothing else but gold, and silver, and money. For gold and silver being (as it happens) almost in all countries of the world high valued, is a commodious measure of the value of all things else between nations. . . . By the means of which measure, all commodities, moveable and immoveable, are made to accompany a man to all places of his resort, within and without the place of his ordinary residence; and the same passeth from man to man within the Commonwealth, and goes round about, nourishing (as it passeth) every part thereof; in so much as this concoction is, as it were, the signification of the Commonwealth.—HOBBES.

In my experience, for the sake at any rate of those readers who are new to the subject, it is never wise to set abroad comparisons of this character without reference—even at the risk of repetition—to the chief limitations and dangers involved. I have dealt with some aspects of the subject in "British Incomes and Property."

(i.) It is obvious that the aggregate wealth of a tribal community measured in cowrie shells (even if the valuation in shells were reduced to sterling at the "par of exchange" for such shells with a gold currency) would not be comparable with the wealth of a civilised community. There would be many things by which the native sets great store, and which, in short, are valuable to him, but have no merit in the eyes of a European, while many treasures to a European would be "worthless" to the native. The two countries might theoretically contain each the same physical objects of possession, and yet register quite different aggregates of "wealth." The illustration is, of course, an extreme one, but it is intended to bring out the fact that in the countries to be compared men must care for the same objects in a similar way, and their scale of relative values must be akin. To the extent to which countries diverge in this respect, the comparisons will be invalid.

(ii.) Consideration of the aggregate of gross personal wealth without regard to a national debt, and the taxation consequent thereon (even if the whole debt is held at home) may lead to ridiculous results. The stock may be wealth in the hands of the investors, but it is a concealed liability, by way of taxation, on the incomes and capital generally.[1]

The usual way, and I think the best way, of treating this matter in the past, has been to count as wealth the individual holdings in Government stock, but to *deduct the debt as a mortgage* on the property owned by the State or collective community. The practice of valuing national wealth varies in different countries, some being much more inclusive in

[1] "British Incomes," p. 390.

the matter of State property, and this difference would be a source of trouble in making comparisons if the gross value were in question. But the amount of the net capital, after deducting the debt, is so much smaller that it bears a relatively insignificant proportion to the whole national capital, and so this method of deducting the debt tends to diminish the difficulty and the importance of the exact comparability of the estimates for different countries so far as the year 1914 is concerned. In all comparisons and estimates for later years the matter will assume great importance, for the deduction of the debt from State property will often give a minus quantity, which for many purposes, though not for all, should reduce the aggregate of personal wealth.[1]

(iii.) The wealth of a country may mean *either* the value of the objects found within its boundaries, *or* the wealth of the inhabitants, including their foreign possessions, and excluding wealth within the country held by people abroad. The confusion between these two ideas has played havoc with discussions on such subjects as the "Taxable Capacity of Ireland."[2] It is the latter sense—the wealth of the inhabitants—that is mainly under consideration in this paper. That aspect is foremost when questions of taxation are prominent, but there are matters, such as the inalienable wealth of a country in a geographical sense (for warlike purposes), for which the former is important. A colony capitalised from the home country may be poor by the wealth of its inhabitants, but rich in its resources and the actual yield within its borders.

(iv.) Wealth in private hands is not easy to define exactly, for there are various shades of ownership:

(*a*) Absolute personal disposition of the whole value.

(*b*) Trust interests.

(*c*) Collective ownership with only potential specific allocation to individuals, such as the reserves of companies which may be of higher value in the hands of the company than the aggregation of the market value of individual interests therein.

[1] *Vide* "An Estimate of the Capital Wealth of the United Kingdom in Private Hands," *Economic Journal*, September, 1918.

[2] "British Incomes," p. 369.

(*d*) Collective ownership, without the possibility of individual allocation, social private wealth, such as churches, clubs, etc.

Similarly, communal wealth is not all of the same degree of "dispersion" in value.

(*a*) City and local property, like waterworks, buildings and trams, having a "value" determinable by deliberate comparison with privately owned objects.

(*b*) National property, varying from a museum to a navy.

The closeness with which a "market value" can be assigned varies with the class of wealth, for, if there is no possibility of a market, one naturally tends towards the adoption of the cost of production or reproduction. Moreover, some of the comparisons of national wealth are slightly impaired by the extent to which the methods employed give different recognition of each class.

(v.) So far as "income" is concerned, there are other considerations, which I have set out in "British Incomes," and will not repeat here, except one—by way of illustration—viz., the non-inclusion of a valuation of domestic services by a wife to her husband and home which would lead to a difficulty in comparisons between countries of different social habits. For example, if we suppose that in one country one million wives remain at home and one million women work in industry, and there are no domestic servants, the total "income" will differ from that of a country where half the "wives" work in industry and half the other women are domestic servants in the homes of the absent wives, despite the fact that the total "work" being done is the same in both cases.

(vi.) In countries where values vary widely at short intervals for "stock" or produce which bulks largely in the total valuation, there may be more difficulty in securing a valuation on normal conditions.

IV.—Various Methods of Computing Wealth and Income.

Stated quite briefly, the available methods for computing national capital in different countries are as follows:

(1) *Based on Data arising through the Taxation of Incomes.*

(*a*) *Collective Taxation or Taxation at the Source.*—The statistics of such taxation covering the whole profits of corporate bodies, like public companies, before distribution or whether distributed or not, obviously lead to comprehensive results. Where *sources* of income are attacked for revenue purposes, and the destination of income is ignored, it is not necessary for elaborate estimates to be made for income remaining in collective or semi-collective ownership; moreover, such a system allows of profits being presented for different *classes* of business or income, and so enables them to be capitalised on an appropriate basis. There may, however, be a danger that this method will give too high a result, if sufficient allowance is not made for income going to foreigners or persons living entirely abroad, which thus forms no part of the national income. If the tax is on the British model, which taxes in full *both* income originating abroad and accruing to persons residing in the United Kingdom, *and* income originating in the United Kingdom and accruing to persons abroad, this difficulty is inherent in the method, and perhaps sufficient recognition has never yet been given to it. Liability to error arises in three ways:

(i.) Evasion in the tax.

(ii.) Omissions from the scheme of tax (*i.e.*, "garden produce" as taxable income; "enjoyment" income from movable property).

(iii.) The basis of capitalisation, viz., the number of years purchase adopted.

This method, generally known as the "Giffen" method, though not invented by him, is the main basis for the valuation for the United Kingdom. It will be to a limited extent available in the United States, South Africa and other colonies.

(*b*) *Taxation of Income on Individual Returns.*—Where statistics of this character are available, they may be utilised for capital valuations, but only with some difficulty. If there is a rough division of income into earned income and income from property, it is, of course, of assistance in the capitalisation. The chief defects are:

(i.) The considerable extent to which evasion takes place.
(ii.) Omission of all income held collectively.
(iii.) Difficulty in determining the ratio of income to capital on the average, which makes capitalisation a far greater difficulty than under (*a*) (iii.) above.

(2) *Based on Data arising through Annual Taxation of Capital.*

(*a*) *Particular Classes of Property, such as Land or Buildings.*—Obviously these particulars supply a part only of the whole capital valuation, and they more properly belong to the "inventory method" referred to below. Unless the values are revised regularly on uniform lines, without local differences, they form but a rude basis, and there are always difficulties in determining the extent to which other forms of wealth (*i.e.*, shares or business profits) duplicate these values. Some of the Continental systems of taxation supply material of this order, and the Australian States have regularly revised valuations which are valuable because they constitute so large a fraction of the total wealth.

(*b*) *General Property Valuation.*—The particulars furnished by a system of annual taxation upon all classes of property, should, in theory, form an ideal basis for a valuation. But unfortunately, in practice, such a tax as the General Property Tax in the United States, is full of defects. The valuations of personal property tend to disappear altogether (as was the case during the eighteenth century with our own "Land Tax") or to be negligible, and thus real property alone remains to bear the burden. This real property is assessed on very diverse lines in different areas, and is admittedly much below the selling values in many States. These facts are commonplaces to all students of American taxation. In effect, therefore, this class is not really distinguishable from II. (*a*) above and the information gained is never enough for a complete valuation, but becomes only a factor in the inventory methods.

(3) *Based on Data arising through Taxation of Capital at Irregular Periods.*

(*a*) *Statistics of " Estates " chargeable with Duties on passing at Death.*—This method has the appearance of being the most satisfactory and scientific of all. A special *ad hoc* valuation is made periodically of all wealth held in individual ownership, and it is only required to ascertain what proportion of the whole comes thus under review in any given year, or, alternatively, at what intervals of time the same item of wealth will be re-charged to duty on the average, in order to compute the total wealth belonging to individuals. But this apparently simple task is, in practice, fraught with many difficulties, and the method of ascertainment of the " multiplier," though greatly improved of late years, is still open to doubt or inquiry upon important points. The question cannot possibly be opened up at length here, and those interested are referred to the considerable literature upon the subject, notably Sir Bernard Mallet's paper given to this Society in 1915; Mr. G. H. Knibbs' work, " The Private Wealth of Australia "; Chapter XI. of my " British Incomes "; and the monumental work by Corrado Gini to which reference has been made. Knibbs says there are two methods—(1) the determination of the average interval of time between the passing of estates to the successors in title, and (2) the ascertainment of the average rate of the passing of estates during any period under review. The first may appropriately be called the *devolution-interval* method, and the second the *devolution-rate* method. Obviously the two methods are—in the last analysis—essentially the same, the number of years in the devolution interval being the reciprocal of the annual rate of devolution. At first sight it might therefore appear that it is a matter of little moment which method we follow. This surmise is not correct; " the devolution-interval method is the more complicated and uncertain, and the corrections—which must be applied to any estimate of its value—are not readily computed or easily ascertained." Gini, however, makes some subtle distinctions, and elaborates several variations with different titles.

The chief difficulties of all devices for using Probate returns arise through:

1. Defects in administration, and evasion of the particular duty the statistics of which are being used.

2. The effect of gifts *inter vivos*, in keeping a certain proportion of wealth from "passing" with the frequency of ordinary intervals for estates as a whole.

3. Legal points in the estate duties, *e.g.*, the practice of settlements, and settlement estate duty.

4. The fact that vital statistics are continually changing.

5. The application and sufficiency of vital statistics, *e.g.*, the variations between the death rates for the different ages, classes of people, and the two sexes, in relation to the wealth held in each class.

6. The actual growth of wealth in the period under review.

Even when these difficulties are overcome, the result is an aggregate of *individual* wealth only, and additions have to be made for wealth which may not be fully reflected in individual holdings (reserves of public companies) and for social, corporate or national wealth. The method would have the advantage over the method of capitalisation of income, in that it measures the value of non-income-producing wealth, such as furniture, pictures and jewellery, but this advantage is considerably reduced in practice, for such wealth is frequently "passed" during lifetime, and is often not fully valued.

The method has long been the favourite one in France, and it has also been studied and used in the United Kingdom, Italy, Australia, and to a less extent elsewhere. It has almost invariably given lower results than the other methods.

(*b*) *Statistics of Capital Valuations for Specific Purposes.*—The special valuation of land for the land values duties furnishes an example. From this point of view these statistics are partial and auxiliary only, and nothing short of a complete and universal valuation—as under proposals for a capital levy—could furnish statistics adequate for an estimate of national wealth. Even in this case there is a large sum that must be called "national wealth" that would not be included in the aggregated individual fortunes.

(4) *The Inventory Method.*

This method aims at a valuation, in the aggregate, of each "form" in which wealth is embodied, without regard to the ownership by individuals, companies, etc. It is often called the "objective" method. It depends for its success almost entirely upon the existence of statistical material compiled for other purposes, *e.g.*, import and export statistics, local government taxation figures, expert valuations of mineral resources, statistical enumerations of objects to which an average value can be applied. Examples of the last mentioned are the valuation of shipping by reference to the total tonnage multiplied by an average value per ton, or of mining capital by the average capital invested per ton of output; or of live stock by the number of each kind multiplied by an average price; or even of businesses, by a co-efficient. There are few classes of statistics that have not been pressed or even "hammered" into service for the "inventory" method, and further illustration can best be left to the paragraphs that follow.

The chief defects of the method are:

1. The impossibility of testing how far the ownership of the wealth is within the country or not. It is obvious, for example, that if half the farms in a country are mortgaged to or owned by foreigners, their value will give a false impression of national wealth.

2. The difficulty of determining whether all forms have been included.

3. The risk of overlapping, *i.e.*, stocks and shares duplicated with real property owned by companies.

4. The divorce from all tests of profit earning capacity. For example, the carriages, railway lines, stations, etc., of a railway company are all "valued," and their aggregate comes to, say, £5,000,000. The railway as a whole may have been losing money for years, or, on the other hand, may be making several millions a year.

Of course, as a general rule, on capitalisation of plus and minus "goodwill" (in the excess or deficiency of profits compared with the normal return upon invested capital), the differences tend to cancel out, and an aggregate of valuations as "going concerns" tends to approximate to invested capital, except when there are striking changes in the value of money and rate of interest.

5. The difficulty, where "averages" are employed as factors, of accurately determining them. If they are the results of impressions, they may be considerably in error, and even if they are the product of actual observations they have often to be carefully weighted in application to the different classes.

It is rarely that a "sample" can be taken which can be regarded as identical in proportionate components with the whole. Average "wage" statistics can be applied only after close study of the data.

The inventory method may be carried through by single observers, as in France, Germany, Spain, Australia, Argentine, and other countries, or it may be the collected results of many investigators, as with the United States, where it is called a "census."

An auxiliary or alternative method to the inventory, but really falling under that title, is the "fire insurance" method (as applied in Germany) which, of course, is very rough, and covers only a part of the field.

(5) *The "Census" Method.*

In the census proper a statement is taken from each individual resident declaring the whole of his wealth and income. This method has been followed in Australia, and is described with some elaboration and much important new analysis by Mr. G. H. Knibbs. It has the disadvantage, of course, that individuals may have very different ideas of capitalising their income, or of estimating market values; that some may be afraid of the use of the census for taxation purposes; and that there may be omissions to make the return. In any case, additions have to be made for collective wealth. But it is the only method which enables direct correlation between wealth and income to be examined. From such an examination Mr. Knibbs has obtained the "wealth-and-income" or "pluto-prosodic" surface.

The chief methods of determining national income follow to some extent similar lines.

1. *Statistics of Income Taxation.*—The value of this method depends on the completeness and efficiency of the tax in question. It is, for example, very different if England is compared with Italy. "Taxation at the source" obviously gives more complete figures, requiring less supplementing from other sources.

The extent to which this method covers the field depends upon the exemption limit, or the point at which the tax starts. The Prussian limit of £47 per annum enabled the method to be applied to cover the bulk of the population, but the British limit of £160 did not account for as much as one-half of the total income, or more than one-eighth of the people. The American exemption, still higher, left an even greater proportion to be dealt with by other means. But with all its defects, this method is the only really satisfactory one for dealing with the income of the wealthier section of the community.

2. *The Occupational Census Method.*—This method is used for dealing with the wage-earning classes and smaller incomes where the income tax statistics do not apply. These classes have little income beyond their earnings, and the average earnings of each class are determined as closely as may be, and applied to the number of earners in each class or occupation as given by the census. The whole value of this method depends, of course, on the accuracy of the census, and still more upon the care with which wage statistics are prepared and handled. The lower half of the British estimate is determined in this way with very satisfactory material. The same method is adopted for France, but, by the application of averaged earnings, the result is obtained on rougher lines. In France, moreover, the method is applied to businesses and professions in the absence of income tax statistics.

3. *Interest on Capital.*—In a few cases estimates are partly made up, or are checked, by a computation of the average yield upon different classes of capital to the amount of such capital determined in other ways.

4. *"Net Output" or Census of Production Method.*—If the total value of work done or goods produced in a year is determined and the values of the raw materials used are deducted, the "added value" may be taken to be the fund which forms the people's income. In the British Census of Production, 1907, the "net output" was the gross output (selling value) less the cost of materials used.

It expresses completely and without duplication the total amount by which the value (at works) of the products of the industry taken as a whole exceeded the cost (at works) of the materials purchased from outside, *i.e.*, it represents the value added to the materials in the course of manufacture.

It corresponds, *approximately*, to the balance of a trading account. It constitutes for any industry the fund from which wages, salaries, rent, royalties and sundry expenses have to be defrayed, the balance being profit (or loss). Mr. Flux showed that the results of the 1907 census were consistent with the estimates of British income obtained in other ways. Giffen, in 1903, made an estimate by aggregating the value of goods consumed. This method has hitherto been the chief one for the determination of the incomes of the United States.

5. *The Income "Census."*—This method has been adopted in Australia for 1914–15, at the same time as the wealth census referred to above.

V.—The United Kingdom.

I do not propose to devote a great deal of my space to the estimates of our own national wealth and income, because the literature on the subject is readily available, and the methods and data are better known and understood than those for other countries.

The most recent detailed estimates of capital are those given by Mr. Crammond before this Society in 1914, £16,472,000,000, and my own in "British Incomes and Property" (published in 1916), for 1914, of £14,319,000,000, ± £1,867,000,000. The latter was re-examined in 1918 in the *Economic Journal*, in connection with the proposals for a capital levy, which had brought forth a crop of "estimates" widely divergent. The former was repeated by Mr. Crammond recently without re-examination.

The estimates by Sir Bernard Mallet and Mr. Strutt, given to this Society in 1915, based on the "multiplier," led to a considerably lower figure than my estimate. For convenience I reproduce below, from "British Incomes," the main headings of the valuation (which has not to my knowledge been adversely criticised in any detail) and would refer those interested to Chapter XI. of that book for further particulars:

	Capital Value (Million £).
1. Lands	1,155
2. Houses, etc.	3,330
3. Other profits (Sch. A.)	22
4. Farmers' capital	340
5. Sch. C., National Debt, etc.	1,148
6. Railways in the United Kingdom	1,143
7. Railways out of the United Kingdom	655
8. Coal and other mines	179
9. Ironworks	37
10. Gasworks	182
11. Waterworks, canals, and other concerns (Sch. A.)	278
12. Indian, colonial, and foreign securities	621
13. Coupons	383
14. Other profits and interest	276
15. Businesses not otherwise detailed	2,770
16. Income accruing abroad and not remitted	400
17. Income of non-income-tax paying classes derived from capital	200
18. Movable property, etc., not yielding income (furniture, etc.)	800
19. Government and local property	400
Total valuation	14,319
Or, in round figures	14,300

At the time when Mr. Crammond gave his estimate of 16,472 millions, I criticised some of his details, and I find that he remarked that my criticism was "very valuable" and that he was "glad to accept" the corrections. In setting out my own results subsequently, I continued the analysis of his details. But in view of his recent use of the original figure as the estimate for 1914, and of the fact that it has been widely published and quoted, and diverges so widely from my own, it is perhaps only right that I should indicate wherein the main divergence lies. For "lands" my estimate is 150 millions less, for "companies and trades" generally it is nearly 900 millions less, though for a specially selected group it is 200 millions more. In the case of his capitalisation of the income of non-tax-paying classes derived from capital, Mr. Crammond has put 1,000 millions against my 200 millions, because he has quite confused this old entry of Giffen's with the *full* capital of the lower classes, and has ignored the extent to which the *gross* figures for income tax already capitalised by him in his remaining figures cover the ground. His figure for capital in investments abroad on which income is not brought home was 500 millions more, and his figure for movable property 200 millions more. Except as to the last item, which is merely a matter of individual judgment, I remain of opinion that the best evidence supports my figures rather than his; that he has not made himself sufficiently acquainted with the character of the original data, and that his aggregate estimate is far too high. He gave the wealth per head in Germany as £227 against a British average of £336. His methods lead to appreciably higher figures than those arrived at by Sir Leo Chiozza Money in "Riches and Poverty" or in "The Nation's Wealth."

In the *Economic Journal* for September, 1918 ("An Estimate of the Capital Wealth of the United Kingdom in Private Hands") I have shown that the national wealth, as estimated by the multiplier upon the data supplied through individual returns of wealth, is reconcilable with the estimate that *would be made* on the Giffen (or capitalisation of income) basis with our *existing* income tax figures, if we had similar taxation on *individual statements of income* and not taxation at the source. That is to say, the gap between the old estimate by the capitalisation method and the estimate by the "multiplier" estate duty method is not substantially greater than the gap between the capitalisation method for income tax *assessments* at the source, and the capitalisation of income admitted on personal statements for super tax, abatements, etc., in the same scheme of taxation for the same year. I also checked the estimate in "British Incomes" in sections by reference to the results of the new land valuation, the Census of Production, and the capital invested abroad, and I concluded that there was no evidence to justify any substantial additions. I therefore remain of the opinion that £15,000,000,000 was an outside figure for the year in question for the total national wealth, of which upwards of £3,000,000,000 would not have been returnable by individuals in statements of wealth for the purposes of a capital levy.

The estimate of income is generally made up of three parts:

(*a*) The income of income tax paying classes, from the tax statistics.

(*b*) The income of wage-earning classes.

(*c*) The income of others below the income tax limit (made the subject of a special inquiry by the British Association a few years ago).

Dr. Bowley has so recently reconsidered these factors that I cannot do better than repeat his conclusions.[1]

The section under (*a*) was carefully considered by me in "British Incomes," and he has accepted all my conclusions. The summary is:

	Million £.
Wages, small salaries, etc.	1,046
Incomes over £160	936
Miscellaneous	108
	2,090 for 1911,

and on similar lines rather over £2,250,000,000 for 1913–14. He concludes: "I am unable to obtain the figure of £2,400,000,000 frequently stated as the pre-war income without making extravagant estimates of wages or of incomes from abroad." The totals arrived at on these principles for 1907 were reconciled with the results of the Census of Production by Mr. Flux on the "net produce" method; and

[1] "The Division of the Product of Industry—an Analysis of National Income before the War."

they have also, very roughly, been shown to be consistent with the annual values of residences and the gradation of wealth indicated by the house duty statistics. At an earlier date (1903) Giffen obtained a figure from "total consumption" which tallied with the direct results.

I think that on the whole the estimate of income, having regard to the nature of the data and the methods employed, is perhaps the most accurate available for any country, and is certainly in Grade I. My estimate for capital taken alone would have been placed in Grade II., but, in view of the consilience of other lines of evidence, it is fairly safe to say that the range of error is not greater than 10 per cent., though it certainly cannot be affirmed to be much less.

VI.—The United States of America (excluding Alaska and the Island Possessions).

The fountain head of practically all information on the subject of American wealth is the "census" conducted by the Washington Bureau. The first census was in 1850, and it was repeated at decennial intervals down to 1900, and then taken in 1904 and 1912. The latest figures for the purposes of this paper are taken from the *Bulletin of Estimated Valuation of National Wealth*, dated March 10, 1915, which gives the statistics for 1912. A comprehensive work, "The Wealth and Income of the People of the United States," by Dr. King, of Wisconsin University, deals very lucidly with the results of the censuses from 1850 to 1904, and can hardly be improved upon as a fair and critical review of the material presented in a broad and popular way. Other monographs exist in fair numbers, but they are practically superseded by this work. In his judgment, the earlier census estimates were only broadly representative of the facts, but in the recent ones we may accept the results with "a very considerable degree of confidence," for there has been progressive improvement in the methods adopted by the Government departments and in the quality of the statistical material. An interesting summary of the results may also be read in "The Private Wealth of Australia," by G. H. Knibbs, published in 1918.

Capital.—Although the American method is called a "census," it is more strictly an inventory, as far as possible on a tax basis, for it does not require individual statements of personal wealth, but delegates the construction of the inventory to a large number of officials for different areas, under careful uniform instructions. Thus it has advantages over an inventory compiled by a single statistician working for the whole country at once, for it works in detailed touch with all local conditions and variations, and thus obviates the risks attaching to averages, or even to weighted averages. But, on the other hand, there is always difficulty in getting a number of investigators to act upon a strictly uniform principle. The American census has always been very dependent upon the data furnished by its system of taxation, and therefore belongs just as much to the estimates under the taxation class as others which have never been dignified by the name of "census," and it is clearly in a different category from the Australian census. The accuracy of the valuation for the general property tax has always been a critical point, practically dominating the whole estimate. In 1850 the officials were asked to state the true valuation as well as the assessed valuation, by adding a percentage to the latter. The proper percentage to add was certainly not acknowledged or known at that early date. A similar instruction was given in 1860. In both these years property belonging to foreign residents was included and State property omitted. The 1870 report claimed that the addition to compensate for under-assessment had been made with great nicety by competent investigators, but admitted that nothing more than an "impression" could be given of the amounts of personal property omitted from assessment. The valuation was then $24,055,000,000, or £4,940,000,000 on a gold basis. In 1880 the attempt at correction was very elaborate, and from inquiries in many directions it was determined that assessed values were, as a whole, 65 per cent. of true values; but the Acts of 1899 and 1902 (resulting in the censuses of 1900 and 1904) were efforts to place the investigation on a still firmer footing. Franchise properties like railways and tramways were valued by a capitalisation of net earnings; ships were taken on building costs written down for depreciation; mines were valued on the survey reports, while personal property was taken on four years' national purchases, checked by a method of sampling individual households, and their insurance policies.

In 1912 the following points are of interest: Taxable real property was considered to be assessed at 11·7 per cent. of its value in Iowa, and 15 per cent. in Nebraska, as against 100 per cent. in New Hampshire and Wyoming. The exempt property was taken as a proportion (one-eighth) on the sample of the three States for which it was separately given. Live-stock and agricultural products were valued according to the official returns from the Board of Agriculture, and on the results of previous censuses; gold and silver coin and bullion, railroad and equipments, cars, etc., shipping and canals, mining products, etc., were similarly estimated from appropriate official reports. For manufacturing machinery, tools, etc., the proportions ascertained in 1904 were adopted. Tramways, telephones, electric light and power, were taken at the cost of construction. The valuations of manufactured products were based upon previous censuses, and it was assumed that one-twelfth of the value of foodstuffs, and one-half of the value of other products were in merchants' stock, and that there was a two months' supply of factory materials in stock. A six months' stock of imports was assumed, while furniture and similar movables were taken as the products and imports of the period from 1904 to 1912, added to 20 per cent. of the 1904 value, and light articles (such as kitchen utensils) were estimated at a year's product. The table on page 295 in sterling is taken, in an abridged form, from G. H. Knibbs' work.

After considering carefully the data and the method of valuation for 1912, my own impression is that a range of possible error of $\pm$ 5 per cent. should be assigned to (*d*), a range of $\pm$ 7½ per cent. to (*a*), (*e*) and (*h*), of 10 per cent. to (*c*), (*f*), (*g*), (*i*), of 20 per cent. to (*b*), (*j*), (*l*), (*m*), and of 30 per cent. to (*k*), (*n*) and (*o*).

The net effect of these estimates is a range of possible error over all of $\pm$ 13 per cent. Although it is extremely improb-

Form of Wealth.	In Million £.		
	1900.	1904.	1912.
(a) Real property taxed .	9,519	11,405	20,212
(b) Real property exempt .	1,277	1,404	2,533
(c) Livestock, farm implements, etc. . .	833	1,011	1,563
(d) Gold and silver coin, etc.	345	411	538
(e) Railways, Pullman cars, etc.	1,877	2,336	3,343
(f) Tramways . . .	324	456	944
(g) Telegraphs and telephones	125	167	286
(h) Shipping, canals, irrigation	111	174	380
(i) Privately owned waterworks, electric light and power . . .	138	173	491
(j) Agricultural products .	299	390	1,076
(k) Manufactured products .	1,250	1,522	3,019
(l) Mining products . .	67	84	167
(m) Imported merchandise .	87	102	170
(n) Manufacturing machinery	522	678	1,252
(o) Clothing, ornaments, furniture, etc. . .	411	514	882
Total National wealth	18,188	22,008	38,577
Population . .	75,994,575	82,466,551	95,410,503
National wealth per head of population . .	£239	£267	£404

able that all the errors could be in the same direction, and it is therefore likely that the net error must on this showing be much less than 13 per cent., I do not feel that the estimate can properly be put into the first grade. It is difficult to judge whether, if all profits were capitalised, the plus and minus goodwill would so balance as to leave the result practically equivalent to this inventory of hard assets, and I am never completely reconciled to any valuation which ignores the valuation as a "going concern," on the actual earning power of the separate aggregations of assets. A few of the above items have been valued on this basis, but only a small part of the whole has real relation to current earning power.

Year.	Money value of the economic goods possessed by the people of the Continental U.S. in £.	"Active capital."										"Consumption goods."		
		Year.	Total "Active capital."	Business buildings and fixed machinery.	Railways.	Other public utilities.	Movable machinery, tools, implements.	Live-stock.	Farms.	*Per capita* value of active capital.	*Per capita* value after adjustment by price index.	Total.	Value *per capita*.	Value *per capita* after adjustment by price index.
	Million £.		Million £.	Million £.	Million £.	Million £.	Million £.	Million £.	Million £.			Million £.		
1850	1,466	1850	566	229	94	37	82	123	1	24½	17	476	20	15
1860	3,320	1860	1,212	444	317	66	127	246	2	39	27	862	27	19
1870	6,160	1870	1,845	611	548	90	248	345	2	48	22	1,226	32	14
1880	8,968	1880	2,802	846	967	140	488	356	5	56	42	1,983	39	30
1890	13,365	1890	3,965	1,171	1,448	270	548	521	6	63	55½	3,132	50	44
1900	18,188	1900	5,092	1,490	1,578	667	823	657	7	67	66	4,280	56	55
1904	22,008	1910	9,856	2,733	2,795	1,997	1,232	1,090	10	107	85	6,776	74	58

The table on the opposite page is made up from various sections of Dr. King's book.

It may be mentioned that the French writer, Neymarck, adopted an estimate of 25,900 millions for 1913. Rising land values constitute a growing fraction of the nominal increase of wealth, for in 1850–60 they were one-third only, and in 1900–1910 three-fifths of the increase is for higher land values.

Income.—Dr. King says that " with existing data " it is difficult, if not impossible, to estimate with great accuracy the total value of the national income. He considers that it can be attempted in two ways : (1) the consumption of the people, and (2) the production of the nation. As regards (1) there is little information on retail prices, and it is difficult to avoid duplicating items, for there is much " consumption " that takes place for further production, so that (2) is the more workable. He tried the method of multiplying the book income of families by the number of families in the class, and so tracing the process of production from nature to the final consumer, and found that for 1910 the totals were not greatly different, but the second process necessitated less guessing than the other. The following table shows the chief results :

United States National Income.

Year.	Total money income.	*Per capita.*	Corrected for price.	Per family.	Price.	Total estimate capital savings.	Net goods consumed.
	Million £.	£	£	£	£	Million £.	Million £.
1850	455	19	14	110	79	82	373
1860	747	24	16	126	89	173	574
1870	1,380	36	16	183	82	215	1,165
1880	1,519	30	22	151	114	260	1,259
1890	2,482	39	35	193	170	330	2,152
1900	3,693	49	48	228	224	322	3,371
1910	6,272	68	54	307	243	411	5,861

Dr. King considers that the error in 1850 may be at least

25 per cent., but that the years 1900 and 1910 are correct within 10 per cent. Spahr's work was the chief authority for prior years, and it gives £2,220,000,000 for 1890, or 11 per cent. less than King. As the estimate stands, unchecked by any taxation data, it is in the second grade, but after the lapse of a few years such statistics should be available from the recently instituted income tax as to make a much closer estimate possible. The early years of a new tax never give complete and reliable statistics of wealth, but the details published in 1918, for 1916, by the Treasury, so far as can be seen, lend support to Dr. King's work. The exemption limit is high, and much careful work by investigators with first hand knowledge of the material is necessary to render real assistance upon the problem.

A recent writer[1] has made a computation for 1917 and 1918 on the income of the United States as a whole, and as subject to excess profits and income taxation. He adopts the same method as Dr. King, who gave nearly 6,275 millions for 1910. The Hon. A. C. Miller, of the Federal Reserve Board, put the income for 1917 at rather more than 10,000 millions.[2] Professor B. M. Anderson, of Harvard, put the figure as high as 14,000 millions[3] for 1917, by adopting King's 1910 basis and adding 31 per cent. for increased production and 71 per cent. for increase in prices. Mr. Friday's own estimate is 13,400 millions, obtained by the "net product" method, which may be said, despite the enormous inflation and the difficulty of handling the figures consequent thereon, to confirm King's work. The point to be considered here is the extent to which the 1917 figure is confirmed by the income tax data for 1917, after detailed consideration. He finds that the total income subject to tax was nearly £3,700,000,000, but he is not able to relate this to the *total* income for the year. All that can be said is that the ratio of increase in taxable income from 1913 to 1917 is roughly comparable with the ratio given by the net product method.

[1] David Friday, "The Taxable Increase of the United States," *Journal of Political Economy*, December, 1918.
[2] "War Finance and Inflation," *Annals of the American Academy of Political Science*, January, 1918.
[3] *New York Times Annalist*, January, 1918.

Probably when the definite comparison between the results of the two methods comes to be attempted it will be found that the American individual income returns suffer in the same way, statistically, as our own. They will quite fail to exhaust the share of the total income (as taxed at the source) assignable to the classes concerned. Dr. R. P. Faulkner has stated that out of $2,000,000,000 of dividend income, super tax methods account for only $491,000,000.[1]

VII.—The German Empire.

The most frequently quoted source of information for Germany is the work entitled "Deutschlands Volkswohlstand," 1888–1913, by Dr. Helfferich, Director of the Deutsche Bank, published in 1913. It represents a clear and able attempt to get a close approximation to the aggregate income and capital. The estimate for national income is based upon the Prussian income tax returns for 1912, on the following lines:

	Million £.
1. Net total incomes of taxpayers with incomes of over 3,000 marks	326
2. Taxable incomes of taxpayers with incomes between 900 and 3,000 marks, calculated from the arithmetical average of the taxes paid by various classes within this group	421
3. Income of certain exempted persons on an average of 1,500 marks	46
4. Incomes of tax free individuals and heads of households, assuming a minimum average income of 750 marks	299
Total income of personal taxpayers and persons exempt	1,092

The corresponding totals for earlier years were:

	Million £.
1896	629
1901	752
1906	855
1911	1,058

[1] *Journal of American Statistical Association*, 1914, p. 521, "Income Tax Statistics."

An addition is then made for income tax evasion amounting to 10 per cent., which is the estimate given by " most authorities." As only the *dividends* of companies appear in personal returns, the undistributed profits or reserves are then estimated on the basis of *one-fourth* of the income assessed for impersonal taxpayers, or nearly £11,000,000, bringing the Prussian aggregate income up to about £175,000,000, an " average income of 600 marks *per caput.*"

Dr. Helfferich then declares that a—

thorough examination of the assessment results [Durchprüfung der Ergebnisse der Veranlagung] in the other States having an income tax system suitable for purposes of comparison, shows that this average may be taken as representing, approximately [ungefähr zutreffendes Mittel] the average income for the whole Empire. In Saxony the average is rather higher, in Wurttemburg and Baden somewhat lower, in the Hansa cities—with an average of nearly 1,000 marks—considerably higher, and in the relatively poor Thuringian States considerably lower.

Applying the Prussian average to the whole Empire (with its population of about 66 millions) he gives a grand total of private incomes of £1,910,000,000 to £1,960,000,000, to which he adds £50,000,000 for the net incomes of public corporations, Federated States, revenues, making in all £1,960,000,000 to £2,010,000,000. His calculation for 1896 on similar lines comes out at £1,050,000,000, or 410 marks *per caput*, so that there was an increase of 80 per cent. in aggregate, and 45 per cent. in individual income. Helfferich says:

The modest character [Wie mässig] of the estimate is seen by comparison with Schmoller's estimate for 1895 of £1,225,000,000, which, on the same basis of increase, would amount for 1911 to £2,200,000,000.

Helfferich omits to note that if he had allowed a wider margin for income tax evasion in 1896 than in 1912—which by all the literature upon the subject is clearly proper—then his own estimate for 1896 is too low, and approximates more closely to Schmoller's figure, while the operation of raising the latter to the 1911 basis is not justified. He considers that Steinmann-Bucher's estimate of £1,710,000,000 for 1908 agrees substantially [in ungefährer Uebereinstimmung] with his results.

In a fifth edition (1915) of his book, translated into French, Helfferich says that no fresh statistics are available, and for 1913 he makes a " trifling " increase of 120 millions, bringing the total to 43 milliards of marks, or £2,105,000,000.

On a critical review of Helfferich's data and methods, I conclude :

(*a*) That there may be 5 per cent. error in the estimate of tax free incomes either way.

(*b*) That the 10 per cent. addition for evasion is a minimum figure, and that the figure may possibly be even 20 per cent. The comparison between the super tax and abatement statistics, and the income tax at the source in the United Kingdom, which I made in the *Economic Journal* in September, 1918, is an instructive analogy on the possible extent of this margin. But in applying it to these figures, I have allowed for the corporate income under " c."

The introduction of the " amnesty " provision in the 1913 law, as well as the remarks of candid critics of the German administration, indicate that the loss due to evasion may well exceed 10 per cent. The Prussian system is admittedly strict in its scrutiny of the accuracy of items *revealed*, and also of the presumptive agreement of the aggregate income with the style of living, but there was no exhaustive method of referring all objective sources of income in detail to individual dossiers.

(*c*) The addition for company reserves cannot well be more than 25 per cent. below the figure given, but may easily be 50 per cent. above it.

(*d*) The use of the Prussian income per head as the basis for computing the incomes of the rest of the Empire is not invalidated by any *primâ facie* improbability as to its correctness, though at that date the absence of any reliable comparison for such a large State as Bavaria is an important source of difficulty. It seems, at any rate, possible that the average for the whole Empire might differ from that for Prussia by 5 per cent., or, at any rate, that the non-Prussian States might differ from Prussia by 10 per cent.

(*e*) In the estimate of public property an error of 30 per cent. is possible.

The net result of these considerations is that Helfferich's mean estimate of £1,985,000,000 may possibly be excessive by £111,000,000 or deficient by £184,000,000, or say 6 and 9 per cent. respectively, so that it may be classed as a Grade I. estimate.

Capital.—Helfferich takes the statistics of the property tax in Prussia for 1911 as his starting point at an aggregate valuation of £5,100,000,000.

He adds:

	Million £.
1. For taxable property omitted, 20 per cent. .	1,020
2. Private property legally exempt. (Properties under £300 are tax free and those between £300 and £1,000 are free if the owner has less than £45 per annum)	
5,400,000 owners at an average of £122 and 240,000 at an average of £392 . . .	758
3. Furniture, utensils, clothing, &c., 10 percent. of (1) and (2) above (£17 per head) . .	735
4. Property in impersonal ownership . .	245

The aggregate thus becomes £7,850,000,000, or about £196 per head in Prussia, and, on the assumption of a like basis for the other States, £12,750,000,000 for the Empire.

He then adds the State railways, which represent 835 millions of invested capital, but which were worth, in his judgment, £1,000,000,000 to £1,250,000,000; the profit-making concerns belonging to State and municipalities, and further corporations, about 125 millions; schools, churches, parks and similar unproductive property, with military and naval works, from £125,000,000 to £150,000,000. From the last two classes falls to be deducted the public debts, about £125,000,000. The grand net total is £13,950,000,000 for 1911.

Helfferich proceeds to check this by reference to fire insurance statistics for 1911:

	Million £.
Insured values in public institutions .	3,890
Insured values in joint stock companies .	6,060
Insured values in mutual associations .	880
Total	10,830

Insurance of German property in foreign companies is not included, and no allowance is made for insufficient insurance or self-insurance, and Helfferich concludes that the aggregate value of real and personal property cannot be *less* than £10,000,000,000. The value of land, as distinct from buildings, has been variously estimated from £1,000,000,000 to Steinmann-Bucher's figure (approx.) £2,500,000,000. Helfferich assumes an average of £80 to £100 per square rod for city areas, and arrives at £1,470,000,000. An average value of £40 per hectare for agriculture and forests gives nearly £2,000,000,000 more. The last item in his estimate, which he considers to be the most uncertain of all, is that for foreign investments. The Imperial Marine Office in 1905 gave £400,000,000 to £450,000,000 as the capital *investments* abroad. The German holdings of foreign securities were put at £500,000,000 in 1892 by Schmoller, and at £600,000,000 in 1893 by the President of the Reichsbank; at £800,000,000 in 1905 by the Marine Office. These two classes of capital overlap, and cannot be added together. Helfferich adopts £1,000,000,000 after allowing for this, and for the securities sold back to foreign countries, and considers it, if anything, too *high*. His whole table is as follows:

		Million £.
Real and personal property insured against fire	nearly	10,000
Land in country and city	,,	3,500
Mining property	,,	300
Shipping	,,	50
Goods in transit	,,	50
Metallic money	,,	200
Public property, including railways, not insured against fire	,,	1,500
Capital investments abroad	,,	1,000
Total	net	16,420

The tax method, therefore, gives a result of £13,950,000,000 and the fire insurance method £16,420,000,000, from which Helfferich derives his final figure of £14,750,000,000, with these as the limits of possibility. Examining the first method in detail and assigning a margin of error to each item, it seems to me that the preliminary aggregate of £7,850,000,000 may be too much by 200 million and too little by £1,270,000,000, and the whole Empire (£12,750,000,000), therefore 300 millions and 1,900 millions respectively, if the proportion is identical, as assumed. But there may be an error of at least 10 per cent. in the application of this proportion, and of 20 per cent. in the further items, bringing the range of possible error up to —£1,030,000,000 and + £2,630,000,000 respectively.

Judged by this method alone, therefore, the estimate would range between £12,920,000,000 and £16,580,000,000. And all that can be said about the fire insurance method, which contains no elements with a less range of possible error than 20 per cent., is that it tends to the adoption of a figure nearer the upper limit. At any rate, it would justify one in taking, at least, the mid-point between the two limits, and putting the valuation at £15,550,000,000. Altogether, I am of opinion that Helfferich's estimate is too low by at least £800,000,000, and that, despite the use of two independent methods, it cannot be classed as Grade I.

Helfferich then also looks at Schmoller's estimate of (approx.) £10,000,000,000 for 1895, and brings it up to 1911 by taking the mean of the percentage increases in property tax figures and fire insurance figures respectively (after deducting one-fourth for more complete insurance and more rigid assessment). This gives rather over 15,000 millions, but is, of course, of little value. The wealth per head is given as £226 to £240. Helfferich deals in detail with the yearly increase of national wealth, and measures it by various tests, from which we may assume an annual figure at 1912 of £500,000,000 to be closely approximate to the truth. His 1914 figure would therefore be £15,750,000,000, and my own modification, as suggested, £16,550,000,000.

It must be borne in mind in connection with statements—

generally unaccompanied by any data which can form the object of criticism and examination—placing the capital vaguely in the neighbourhood of 20,000 millions, that ulterior motives were particularly likely to exist in German propaganda, and that too much credence can easily be given to vague estimates. Even Helfferich had it in his mind to make out as strong a case as he could, and the tone of his first edition is further exaggerated in the more recent editions (1915). He said:

We are no longer at the mercy of borrowed capital, nor is a financial blockade possible, since the days of the Morocco and Tripoli and the Balkan crisis. We built our fleet and increased our army without having recourse to a loan for the purpose, and, moreover, devoted an equal sum to workmen's insurance, a feat unparalleled elsewhere, and we have repaid foreign loans. The results of the war have so far justified all we expected from Germany's economic and financial preparations. [*N.B.*—The word used is "Rüstung," a term rarely employed in the German language otherwise than for military preparations.] A few weeks before the outbreak of the war we regarded it as a matter of world-wide importance to dispel the illusion that financial tactics could secure what hitherto neither military power, nor alliances, nor ententes, could bring about, namely, the destruction of Germany, and we may consequently hope that the future course of the war will eradicate the illusion once for all and show the world that Germany is equal to any rival. Whosoever fails to destroy us by steel and iron need not hope for salvation from the British Chancellor's "silver bullets." In order to maintain the conquered lands and secure further territory, we must learn from the mistakes of others.[1]

The editor of the journal from which the above is cited goes on to remark that previously it could only be conjectured what motives gave rise to the publication and gratuitous distribution of the book, but that now the reasons are abundantly clear. With such an object it can hardly be supposed that Helfferich would knowingly have neglected any opportunity for stating the national wealth as fully as could plausibly be supported by evidence. As a French writer has recently said concerning German estimates, "their authors have not usually been either modest or

[1] *Stock Exchange Gazette*, January 9, 1919.

moderate." Professor Ballod has made a recent attempt on the following lines:

	Million £ (approx.).
Rural property, built and unbuilt	3,900
Urban	3,600
Shares	1,750
Public debt	1,750
Foreign property	1,230
Private industry	720
Trading stocks	500
Various public debts	4,450
State debts	1,000
	18,090
Deductions: foreign holdings, etc.	2,000
	16,900
" Increase " in rural property since 1914	1,000
	17,900

or, in round figures, 18,000 millions.

He admitted that this total bore traces of inflation, and that after the war the values would shrink, but he was considering the immediate fiscal position and the basis of taxation. In my judgment his estimate does nothing to disturb the approximations already reached on Helfferich's basis.

The most notable recent contribution is that by Steinmann-Bucher,[1] who had reached 17,130 millions for 1908, which Helfferich definitely regarded as too high. The Dresdner Bank, which had already fathered the boastful computations in 1913, took to reassuring the German people when the war was well advanced, and Steinmann-Bucher, " responsible editor of information for the War Commission of German industry," did not hesitate to declare at Easter, 1916 (in *Deutschlands Volksvermögen im Krieg*) that Germany " was rich before the war, is still more so during the war, and will be even richer after the war! " and under the sponsorship of two professors—Schantz and Julius Wolf—his doctrine

[1] *Vide* also *Das reiche Deutschland-ein Wehrbeitrag*, March, 1914, and *350 Milliarden deutsches Volksvermögen*, 1909.

was promulgated with profusion of publication throughout the Empire. He insists that when an objective total of market value has been reached, one has only begun the tale of national wealth—there are other elements not to be so measured. "I mean also the ability to acquire wealth, to conserve and increase it, for this very faculty is in itself riches." We must consider quality as well as quantity.

For 1914 he reaches £18,800,000,000 to £19,850,000,000. In several items he agrees with Helfferich's inventory, and the main differences arise through taking "real and personal property assessed against fire" at £10,000,000,000 to £11,000,000,000, or 1,000 millions more, and "land in country and city" at 5,000 millions instead of the 3,500 millions adopted by Helfferich. Public property is put at 2,000 instead of 1,500 millions. His estimate of insured values does not seem to be free from the possibilities of double entries while, in dealing with the value of property, he has preferred, as a basis, Prussian statistics of sale prices to the taxation rolls. The whole mentality of his work (and an apparent rivalry and jealousy between the two great banks) leads to the view that he would stretch every point to the utmost to prove his thesis. If we accept his figures we are faced with the fact that the boasted Prussian tax system, with all its bureaucratic and police accessories, must have been, in fact, ineffective to a degree, and I do not think the balance of evidence supports a higher figure than £17,000,000,000 as the capital wealth of Germany in 1914, and I prefer the more conservative modification of Helfferich's methods, already given, viz., 16,550 millions.

The French writer, Péret, prefers an even lower estimate than Helfferich's own figure, for he considers the fire insurance statistics exaggerate the facts.

VIII.—France

The best work on the subject in recent years is a comprehensive treatment by René Pupin ("La Richesse de la France devant la Guerre"), published in 1916, while a briefer but useful summary of the data was made by Raoul Péret, Deputy, and former Minister of Commerce, the general reporter of the budget, in 1917.

In recent articles in *Economiste Européen* (February, 1918) E. Théry, author of "La fortune publique de la France" (1912), has made new computations of the capital wealth for 1912, following upon his estimates for 1892 and 1908.

Pupin expected to be criticised for arriving at figures in excess of previous investigators, but he is convinced that for many years the wealth of France has been underestimated. About 1906 to 1908 the "private wealth" had generally been put at £8,720,000,000, whereas Pupin, though regarding the total annual additions as £720,000,000 only, reaches £11,300,000,000 for 1911. In the same way the income had been put at £1,110,000,000 to £1,190,000,000, and Pupin reached 1,430 millions. He claims to establish that the share of national dividend going to "capital" is clearly less than that going to "effort," that, taken together, they make 13 per cent. on capital, and that 10 per cent. of the annual income represents the net annual addition to capital.

Income.—Pupin recognises four possible methods of estimation :

(1) That used by the Administration des Finances, viz., a coefficient giving a constant relation between rental values of premises and the incomes of their inhabitants.

(2) The computation of income from the amount of taxes paid.

(3) Classification of trades, etc., according to local areas, with a "coefficient of productivity."

(4) "Successive approximations," as adopted by de Foville.

He employs the last, and seeks to find the "net income" or annual produce from capital and work which the French are able to dispose of after paying all general expenses of their enterprises. Basing upon the 1906 occupational census, he uses the average wages or earnings for each class or category. The Ministry of Agriculture furnished adequate data in 1913 (farm labourers, £45 ; women, £27 ; male domestics,

£40; female domestics, £30, or an average over all of about £39).

His summary table of personal incomes is as follows:

	Million £.	
From Capital:		
Landed property	80	
Buildings	108	
Stocks and shares	176	
Savings bank, pensions, bank deposits, etc.	36	
	—	400
From Effort:		
Agriculture (4,047,000 persons) . .	148	
Industry (6,215,000 persons) . . .	277	
Commerce (1,437,000 persons) . . .	58	
Professions (100,000 persons) . . .	4·8	
Public officials (655,000 persons) . .	35	
Domestic service (946,000 persons) . .	38	
	—	560
Army and Navy (593,000 persons) . .		25
From Capital and Labour:		
Farming	132	
Commerce and private industry . .	148	
Liberal professions	33	
	—	313
Total income of all kinds . .		1,298
Deduct 10 per cent. from the income from shares for income from other sources already counted in this summary . .		18
Total of individual incomes .		£1,280

Some important additions have to be made to this figure to bring it up to the "national" income in the ordinary sense:

1. Twenty millions for undistributed company profits.

2. Ninety-six millions for *subsistence* of 4,800,000 persons living on the holdings of their farms at 493 francs per head, which can be increased to 140 millions when the whole families are included.

3. 3·6 millions for land belonging to the State, the Départements and the Communes.

The income from landed property is based upon the estimates of capital values, together with the percentage ratios obtained by administrative investigations, and is unlikely to be in error by more than 5 per cent. An inquiry in 1909–10 gave a gross value for 133 millions for dwellings and 14 millions for factories, and Pupin deducts 25 per cent. from the former and 75 per cent. from the latter to get net values, with an addition of 4 per cent. from 1909 to 1911. The gross figure is probably correct within 5 per cent., but the deductions are extravagant, and I incline to the addition of 10 millions to his net result. Accepting the aggregate capital value average of stocks and shares adopted for the capital valuation, the return thereon was taken from various investigations at 4 per cent. This average is not a carefully weighted one, and may be in error by ¼ per cent., or one-sixteenth of the estimated return. The return from savings bank and other bank deposits is built up from various statistical sources under nine heads, and would err only by omissions; in fact, Pupin himself says:

> Au total les revenus de cette catégorie auraient largement dépassé 900 millions en 1911; dans notre désir de demeurer plûtot en dedans de la réalité, nous porterons ce dernier chiffre.

The estimates of earnings and wages are based upon the occupational census of 1906, with an addition, small it is true, but adequate for French conditions, to bring the figures up to 1911. In agriculture the report of an official inquiry for 1910 (published 1913) by the Ministry of Agriculture, furnishes the required data, and the general average wage is £43 for men and £28 for women. Pupin's net figure, after a reduction for the slack season, makes no provision for value of board and lodging to farm hands living in, which would have been charged as an expense in arriving at the farmer's profits. It cannot be put at less than six millions. The possibility of error under the main heading is at least 10 per cent.

For wages in industry generally, Pupin has no scientific *ad hoc* data, but relies upon (*a*) the statistics for mines and quarries in 1905 (which show that 195,000 workers shared just over £10,000,000 or about £52 per head), putting his figures at £54 per head for 1911; (*b*) investigations by

Lavergne and Henry (1906) indicating for male workers £86 in Paris and £49 elsewhere, and for female workers £48 in Paris and £24 elsewhere. These are weighted for the general average, increased by 3 per cent. for the further five years, and give £55 per man (applied to 4,005,000 workers) and £29 per woman (applied to 2,210,000 workers). A small reduction is made for 800,000 transport workers. It will be seen that the samples upon which the estimate is based are small and out of date, and it may well be that the result is 10 per cent. too high or 20 per cent. too low.

For commerce, examples are drawn from a branch bank, an "Établissement de crédit," and the result of "observations" in 1905 showing, for men, £74 in Paris and £40 elsewhere, and for women, £40 in Paris and £24 elsewhere. With an addition to bring the figures to 1911, it is £49 throughout for men and £28 for women, applied to 916,000 men and 521,000 women. The figures are so low that it does not appear possible the estimate can err in excess. Public officials are taken, after sample inquiry, at £60 for State servants and £48 for local officials, while the Army and Navy figures are closely known. Domestic servants are averaged at £40 per head per annum.

The income from industry, etc., is taken under farming, commerce and professions respectively. The farming "net produce" is 36 millions, adopted from official statistics, and subjected to a comparison between 1892 and 1912 in the prices of produce and the level of expenses, and Pupin adds 96 millions for the remuneration of five million "farmers." Renoult, in 1905, gave £12 per head, but Lavergne and Henry, working upon Coste's details (for 1892), put it at £17 15*s*. There is a possible underestimate in this case of at least 10 per cent. In commerce and private industry the details are very meagre; 897,700 businesses from 1 to 50 workers each, or an average of 3, are assumed to make £160 each; 180,000 establishments of a more modest character, without wage earners, are put at £80 each. The professions are taken in detail, with estimated profits for each sub-class. As examples I may mention: doctors, £180; dentists, £120; veterinary surgeons, £120; teachers, professors, etc., £60;

barristers (including the briefless), £60; artists and writers from £48 for half the number up to £480, for the "aristocratic" 5 per cent. of the total number; engineers and architects, £120 for heads of firms, and £60 for assistants, etc. These averages all seem to be astonishingly low to English ideas, but it may be assumed that Pupin has not written without considerable knowledge of actual French conditions.

His actual gross total of £1,430,000,000 may, in my judgment, be too much by 80 millions, or too little by 170 millions, and the estimate standing alone must be put in Grade II.

Péret's estimates for land and buildings, based on the administration of direct taxes, are the same within two millions; learned professions within one million.

For "commerce, industry, public functions and offices" (calculated by the method of "average relation" between the principal of the licence tax and the revenue of the professions in 1907) he gives 220 millions against Pupin's 173 millions, a difference which is largely counterbalanced by his 108 millions for "profit of agriculture" (based on the report of the Commission of Fiscal Legislation of the Chamber of Deputies on the income tax proposal 1907), which is 24 millions less than Pupin's figure. Salaries, wages and pensions are put at 480 millions, and the income from personal property at 160 millions, making a gross total of £1,200,000,000, which Péret himself says is a "very low estimate."

Capital.—Pupin's valuation upon the direct method, as at the end of 1911, is given in the table on the next page, side by side with those by Péret and Théry (1912), in order that they may be compared in detail as far as possible.

Land.—Pupin and Péret take the results of the inquiry by the Ministry of France in 1908, but Pupin, after endeavouring to show its consistency with the statistics of 1879 (by means of index numbers of prices, etc.), adds 320 millions for the enhancement in value between 1904 (which he treats as the true point in time for the official value) and 1911. He then deducts 112 millions as the value of lands belonging to the State, Départements and Communes. M. R. Salefranque,

Pupin.	Million £.	
Land	—	2,688
Buildings, etc.	—	2,680
Valeurs mobilières belonging to French people	4,400	
Less included under other headings	700	3,700
Farm capital	420	
Capital in commerce, private industry and ministerial offices	720	1,140
Other movable wealth	—	480
Savings banks, life insurance, pensions, etc.	—	420
Money	—	312
		11,420

Péret.	Million £.	
Land (1909–10)	—	2,480
Buildings (1908–12)	—	2,600
Government annuity and Treasury bills	800	
French personal property other than Government effects	1,628	
Foreign personal property	1,200	3,628
Debts, private rent	1,260	
Offices, business funds	140	1,400
Movables, furniture, ships and vessels, personal goods	—	420
Life insurance	60	
Bank deposits	210	
Savings banks and pensions	302	572
Cash	—	280
		11,380

Théry (1912).	Million £.	
Land	—	3,116
Buildings, etc.	—	2,420
Valeurs mobilières— French	2,770	
Foreign	1,707	4,477
Farm capital	367	
Industrial and commercial funds	412	779
Movable wealth	—	930
Gold and silver	—	378
		12,100

writing in 1914 on "Les transmissions immobiliers devant l'impôt," adopts the original values of 1878, as proper to 1914, by a comparison of the prices of produce. This figure, 3,640 millions, is probably considerably too high, but there is little doubt that the valuation by reference to the direct tax roll gives too low a result, possibly by 10 per cent.

Buildings.—Pupin and Péret adopt the findings of "L'administration des Contributions Directes" for 1909. Pupin adds for the increase in value for two years 64 millions. The underestimate, after dealing with the various considerations put forward by him, may well be 10 per cent. Indeed, other French writers have put the value of land and buildings *in* 1908 at 5,695 millions instead of Pupin's 5,368 millions for 1912, and Péret treats the figures as underestimated.

On the other hand, the mortgage debt of 600 millions (Michel's estimate) is not deducted (except by Pupin to the extent of 100 millions). Théry's total for these two classes, which he divides a little differently, is rather greater, £5,536,000,000.

Fonds de Commerce, Industrie Privée et Stocks y Attachés—Farm Capital.—Pupin takes the 1906 general census results and classes the commercial establishments as small, average (employing two to five persons) and large (employing more than five persons). He assigns an average profit of £120 to the first, £320 to the second, and £816 to the remainder, giving £148,000,000 for the whole number. The 630,000 industrial businesses are similarly treated, excluding 20,000 which are assumed to be accounted for in the values of shares, bringing these classes together up to 440 millions. Lavergne and Henry in 1908 had taken the official statistics of *la contribution des patentes*, and arrived at annual profits of 106 millions, which they capitalised at 260 millions only. Pupin suggests that at least three years' purchase should have been taken. These figures do not include stock in trade. In an ingenious work "Les Réglements par Effets de Commerce," Roulleau computed from the total bills of exchange stamped in 1911, and their average term, that they represented an average value of 200 millions. Offices are valued, following

Lavergne and Henry, at £75,000,000. Farm capital is computed mainly from the known numbers of different classes of livestock, amounting to £260,000,000, with an estimate for material. Péret's valuations under these heads are not strictly parallel, and are deduced from declarations of inheritance, with the multiplier of 35.

Valeurs mobilières.—The authority of Neymarck is relied upon by Pupin. Neymarck has certainly made very careful computations as to the total values quoted on the Paris Bourse (165 milliards of francs), but the elimination of one-third (55 milliards), as belonging to foreigners, societies, or held by companies whose shares are a mere duplication, is open to considerable doubt.

Ces 110 milliards représentent la fortune mobilière des capitalistes français, abstraction faite des titres conservés dans la portefeuille des sociétés par actions.

Péret quotes the statistics of the Administration of Registration as to the nominal amount of capital liable to stamp duty. The official estimate of Government annuities and Treasury bills is £1,020,000,000, which Péret reduces to 800 to allow for foreign holdings. He considers that the common estimates ranging from 4,300 to 4,600 millions are overstated.

Other Movable Wealth.—Pupin includes furniture, clothing, jewellery and plate, domestic animals, vehicles, ships, etc. For furniture he proceeds upon the assumption that when the letting value of a house is below £200, the furniture has the greater value, but for premises lower than £40 it has less, and on this basis he gets £80,000,000. This is supported by taking a figure, per head, of 120 francs. Furniture is assumed to be worth a quarter of its cost, and clothing one-eighth (£40,000,000). Vehicles are put at £40,000,000 and ships at £20,000,000. Péret's figure is obtained by the multiplier 35.

Savings Banks, etc.—These items lend themselves better than the majority to direct valuation.

Upon the whole valuation Pupin's total is clearly liable to a possible error of well over 10 per cent., and Péret admits that many of his items are rather below the real figure and that the total must amount to at least 12,000 millions. Théry's computation is the maximum to which any French writer, giving detail, has committed himself.

As a matter of fact, in France, "the classic home of the method of the devolution interval," as Gini has said, statisticians have been hypnotised by the multiplier, and, in the absence of the strong countervailing evidence that we in England possess, have put such confidence in its results that they have distrusted the numerous assumptions of the inventory method when it leads to substantially higher figures. Pupin devotes a chapter to the multiplier, and declines to accept the traditional 35, "pieusement recueilli et transmis par les plumes les plus autorisées." But his modification is confined to "l'annuité mobilière." He finds that in 1891–5, taking 1893, the valeurs mobilières appearing in "l'annuité successorale" amount to 1,574,000,000 francs, and at this time the amount of the "fortune mobilière" was 78,000 millions, or 55 times as much. Similarly, in 1896, the total was 52·4 times as great. He therefore takes as a basis the net values of "successions" and "donations," divides the total into two, viz., "annuité mobilière" et "annuité comprenant tous les autres biens," and multiplies the former by 50 and the latter by 35. In this way 7,155,000,000 francs has to be considered. "L'annuité mobilière" is taken as 110,000,000,000 francs divided by 50, or 2,200 millions, and the balance, 4,955 millions, is multiplied by 35 to give the equivalent capital, thus obtaining 283 milliards, or about £11,300,000,000. This method is, of course, no check at all upon the inventory method, and is reasoning in a circle, for it uses the inventory to get the multiplier in an empirical way, instead of obtaining a multiplier by independent means as a check upon the inventory. This multiplier is in no sense a true statistical coefficient from vital statistics. Pupin shows that the multiplier of 35 applied in detail gives results which show surprising discrepancies when compared with inventory values. Savings banks deposits, for example, only come to 50 per cent. of the acknowledged figures. He concludes his examination by saying that its lesson is easily gleaned.

Do not condemn the method of the *successorale annuité*, but correct it, rejuvenate it, and then it will do you good service; all institutions are subject to similar exigencies, and the best buildings can be made to resist the effects of time only if they are properly restored.

—which is a euphemistic way of saying that you must hammer the figures till they fit.

(Since the foregoing was written, and within the past week, the latest edition of Colson's "Cours d'économie politique," just published, has come into my hands. In the third volume, devoted to this subject, he reaches the conclusion that the capital wealth at the end of 1913 was almost exactly £12,000,000,000, or £300 per head.)

IX.—Italy.

Corrado Gini and Lanfranco Maroi, in their works upon the wealth and income of Italy, refer in detail to the investigations and estimates of the following writers in recent years: Nitti (1905), Coletti (1907), Gini (1909), Princivalle (1909), Colajanni (1910), Santoro (1911), Gabrielli Wiseman (1915), Benedetti (1916), Coppini (1916), Contento (1917), Savorgnan (1916), Corniani (1918), Gini (1918), and various others. Literary activity on the subject in Italy has evidently been remarkable, and space quite forbids that I should here examine all these efforts. I propose to give brief particulars of two or three of the more detailed investigations.

Gini builds his 1914 estimates upon his figures of 1908, by applying the ratio of increase shown by the death duty statistics, which lead from 3,296 millions to 4,000 millions, but he gives good reasons for supposing that actual wealth has increased at a greater rate. Maroi and Gini make a careful comparison with the estimate of Princivalle for 1908, and Gini, in the course of his long chapters, presses into service the inventory, the multiplier and the capitalisation methods in turn, as they happen to be available or appropriate. Gini's estimate for 1908 was 3,296 millions against Princivalle's 2,600 millions. His predecessors had used the method of the "intervallo devolutivo," and Gini shows why this method, especially in Italy, leads to deficient results.

Million £ sterling.

	Gini for 1914.	Corniani 1914.	Santoro 1910.	Gini for 1908.	Princivalle for 1908.
1. Lands, including buildings in rural areas, mines, quarries.	1,760	1,200	1,000	1,480	960
2. Buildings (urban) . .	800	800	480	640	480
3. Livestock . . .	200	280	240	140	140
4. Money . . .	56	120	68	68	67
5. Deposits, savings banks, deposit and current accounts . . .	304	240	140	176	177
6. "Rendita consolidata" and other public debts.	240	480	412	220	220
7. Bills, shares and bonds .	264	760	520	252	250
8. Furniture, etc. . .	460	—	—	120	220
9. Other movable property	400	120	120	200	
	4,484	4,000	2,980	3,296	2,440 to 2,600

Gli autori sopra citati non attribuivono poi, a mio modo di videre, un' importanza adequata all' evasione, che essi ritenevano di solo ½ del valore accertato e tassato, ossia di ⅛ del valore effetivo.

Princivalle's valuation was based mainly on the inventory method, and it differs from Gini's in attributing values of 960 and 480 millions respectively to lands and buildings against 1,480 and 640 millions, which Gini claims, with justice, I think, to have established. Maroi confirmed the view that no better starting point can be found for estimating Italy's wealth before the war than Gini's 1908 estimate (che è la più rigorosa e scientificamente esatta). Corniani's estimate seems to be a journalistic effort, lacking a scientific basis, and manifestly erroneous in details, as, for example, in the value of lands, although the total valuation is not far wrong.

Gini certainly went to very great trouble in his inquiries in each local area to ascertain the extent of the deficient valuation of land and buildings, which, of course, dominate the whole estimate.

The estimate for Italian wealth falls, in my judgment, in Grade II.

The national income of Italy has not been so frequently determined, and no recent details are available. The income tax data are weak, and the occupational census method does not greatly assist. Bogart ("Direct Costs of the Present War") adopts the current estimate of £800,000,000.

X.—Spain.

A French writer, M. André Barthe, has recently made a detailed estimate of Spanish wealth:

	Million £ (approx.)
Buildings	500
Land	1,100
Livestock	160
Stocks and shares	240
Equipment	72
Furniture and movables	360
State debt	360
Precious metals	80
Banking current accounts	8
Stocks of goods in hand	60
Total	2,940

He rejects the multiplier method owing to the fact that the statistics of the succession duties go back to 1891 only. But the figures of even the highest year, with a multiplier of 27, give ridiculously low results. The Register of Property gives an average letting value for buildings of £20,000,000, corresponding to a capital value at 4 per cent. of 500 million as against the value by the multiplier method of only £324,000,000.

In the case of land, the products alone are worth £240,000,000 annually, against a capital value on the multiplier method of £373,000,000. The share capital and the profits of large companies form the basis of valuation for business, and smaller trades are taken at an average capital of £160 for 95,000 establishments. Three million families are credited with household possessions on an average of £120 each. The other items of the inventory are calculated in the ordinary way. The value of State lands is cancelled by the entry for the State debt, and collective wealth generally has been included.

Barthe computes the national income on the eve of war as follows :

	Million £.
Property and livestock—1,760 millions at 3½ per cent.	61·6
Wages of 2,000,000 workpeople	80·0
Stock, share and State debt	28·6
Official salaries, taxed and not taxed	20·5
Profits of five classes taxed to l'impôt des patentes ; 389,000 taxpayers at an average of £100 each (corresponding approximately to the tax capitalised at 5 per cent.)	37·5
	228·2

A Spanish writer, F. Bernis, puts the income at less than 240 millions (*Economic Journal*, March, 1919, p. 83). These results give the capital per head *primâ facie* too high, and the income apparently too low, compared with other countries.

XI.—Austria-Hungary.

The most authoritative and recent estimates of wealth are by F. Fellner, who wrote a book in 1913, and also made a report to the International Congress at Vienna. His estimate

Million £.

	Austria.	Hungary.
Landed property	1,206	830
Mines and foundries	235	93
Buildings	624	357
Means of communication	438	242
Movable wealth	1,100	554
Investments abroad	216	8
	3,819	2,084
Deduct for debts due to foreigners	288	350
	3,531	1,734
	£5,265,000,000 as for 1910–12.	

on the inventory method has been revised from time to time since 1902.

Neymarck estimates from 5,250 millions to 6,666 millions, and Péret, working upon Fellner's figures, 6,175 millions for 1913. As regards income, there appears to be no recent estimate. Bogart ("Direct Costs of the Present War") relies upon a figure of £1,100,000,000.

XII.—Capital Wealth in Other European Countries.

I now propose to give brief references to estimates which, generally for reasons of language, I have not been able to consider first hand, but for which I am dependent upon intermediate sources, Gini, Péret, Maroi and others.

Holland.—Gini quotes Boissevain's estimate (on various bases) of £880,000,000 or £192 per head in 1892, and by reference to the ratio of probate returns in the two years, increases it to £1,200,000,000 or £205 per head in 1909.

In a comprehensive work on the statistics of national wealth, national income and public bodies, published in 1917, Dr. Verrijn Stuart brings his figures for 1888 up to date, and covers the period up to 1910. He reaches £1,050,000,000 mainly upon the "multiplier" basis.

Sweden.—Flodström, for 1908, working on the inventory method, computed £767,000,000 as the inclusive national wealth (or 633 millions for individuals) being £141 per head. Fahlbeck, on a similar method, 1913, reached for the year 1908 £777,000,000, or £143 per head:

	Million £.
Agricultural property and State forests	208
Other properties	263
Mines, etc.	29
Fisheries	5
Means of communication	50
Merchant marine	9
Livestock and agricultural produce	55
Machinery, etc., personal moveables	210
Money and foreign credits	23
	852
Debts due to foreigners	75
Total	777

The average rate of increase in the decade was £27,000,000 per annum.

Belgium.—A survey of Belgian wealth published in 1913 by the Finance Ministry of Belgium gave the following estimates:

	Million £.
Land	264
Buildings	235
Personal wealth	545
Cash	17
Furniture, etc.	120
	1,181

or £156 per inhabitant.

As long ago as 1892 it was estimated by Graux and Beernaert at £1,400,000,000 (or £224 per head). Gini raised this to £1,860,000,000 (or £254 per head) for 1908 on the basis of the increase in death duty statistics. But Julin's composite index number "The Economic Progress of Belgium" (*Journal*, February, 1911) showed a rise from 116 in 1892 to 187 in 1908, and it would appear that the earlier estimate must have been excessive. On the other hand, the recent estimate seems, *primâ facie*, too low, and in the absence of comprehensive revenue or tax statistics no close estimate is possible. Maroi refers, without quoting authorities, to recent estimates of £2,400,000,000 (or £300 per head) on the eve of war, but it appears to me that it has proceeded on the same basis as Gini and been carried to 1913.

Norway.—Working upon old estimates for 1884 and 1891, Gini arrives at an estimate for 1911 of 184 to 214 millions, or £79 to £90 per head.

Denmark.—Gini quotes £404,000,000, or £166 per head for 1900.

Switzerland.—Steiger has computed the private wealth of each canton separately for 1900 and 1910. His total was £580,000,000. But Gering and Holz ("Economic politique de la Suisse") reach £800,000,000, tak ng greater account of tax evasion. Gini accepts £600,000,000 to £800,000,000 or £160 to £216 per head.

Russia.—Maroi quotes an estimate of £12,000,000,000 and Péret says it would amount to "at least" 8,000 millions; while Neymarck puts it from 10,000 to 13,000 millions. They are all wide guesses. The Commission of the Duma in 1910, in reporting on the income tax law, estimated the income at £980,000,000, which seems to be an obvious under-estimate.

Turkey is credited by Maroi with 1,400 millions, or £64 per head, and *Bulgaria* with 400 millions, or £90 per head, but Neymarck estimates 600 millions in the latter case. For *Roumania*, Neymarck estimates from 800 to 1,120 millions, and Péret says that it has been "quite recently" put at 860 millions, in which figure were included "the State fortune, railways and forests—but the data are open to discussion." *Serbia* is given 480 millions, or £105 per head, by Maroi.

For *Greece*, Gini quotes an old estimate (1890) by Skiadau of 2,200 millions, or £88 per head.

XIII.—Australia.

The "well informed guesses" put forward by Sir Robert Giffin in 1903 for the various parts of the British Empire, have been relied upon by most writers, but so far as Australia is concerned, they have now been definitely superseded by perhaps the most thorough and complete attempt that has yet been made to ascertain national wealth.

Sir T. Coghlan made reasoned estimates for 1903, in ten classes, amounting to £982,000,000, or actually less than his estimate for 1890, viz., £1,019,000,000.

In July, 1915, an Act was passed by the Federal Parliament making provision for a war census. In one of the schedules issued by the Commonwealth Statistician in connection with this matter, all persons over eighteen years of age, irrespective of sex, possessed of property, holding sums on trust, or in receipt of income, were required to give particulars of the same in such a manner as to show the new value of the property, less debts and liabilities outstanding at December 31, 1914, as well as income from all sources, with deductions of various kinds. The results are set forth in considerable detail in a publication prepared by the

Commonwealth Statistician, entitled "The Private Wealth of Australia and its Growth as ascertained by various Methods, together with a Report of the War Census of 1915." For Australia as a whole, the final figures were:

Aggregate of net incomes for year ended June 30, 1915	£ 257,650,251
Number of returns for individuals .	2,195,065
Aggregate of net incomes of individuals	241,236,552
Aggregate of net assets at June 30, 1915.	1,643,463,376
Aggregate of net assets of individuals .	1,224,225,994

The difference between the two separate statements of income and assets is explained by the fact that the higher figures in each statement include returns from non-resident partnerships, trust funds, companies, and institutions. Income from trust funds is, in the main, included in the "individual" returns of beneficiaries. Similarly, the aggregate of net assets of individuals includes the value of interests in trust estates, assurance and annuity policies, etc.

In the tables relative to income and assets, the allocation to States and territories is based on the locality of residence of the owners or representatives, not on the locality in which the income was earned or the assets are situated. The aggregate of net incomes and assets of individuals, non-resident partnerships, trust funds, companies and institutions for the year ended June 30, 1915, is apportioned among the States and territories as follows:

States and Territories.	Income.		Assets.	
	£	Per cent.	£	Per cent.
New South Wales.	101,382,366	39·34	645,699,068	39·30
Victoria . .	78,987,957	30·66	565,337,460	34·40
Queensland . .	34,244,339	13·30	163,803,435	9·97
South Australia .	20,129,634	7·81	154,623,129	9·40
Western Australia	15,310,227	5·94	67,869,080	4·12
Tasmania . .	7,281,846	2·83	44,945,491	2·74
Northern Territories	210,654	0·08	842,734	0·05
Federal Territories	103,228	0·04	342,797	0·02
	257,650,251	100·00	1,643,463,194	100·00

It will be observed that "individual" income is 93 per cent. of "total" income, and "individual" capital is 74 per cent of "total" capital.

Giffen's figure of 1,100 millions for Australasia in 1903 was, if anything, *below* the actual mark. Mr. Knibbs' volume is interesting, not merely from its full account of a genuine *census* of wealth, but also for its general theoretical examination of the multiplier and its parallel results in practice, the relations between income and capital, and much information on the question of the distribution of wealth.

The method of avoiding duplication between the dividends received by companies and the profits made by companies is described as follows:

A special tabulation was made of the total assets shown on the cards as comprising shares and debentures of companies and a special return was obtained from all Australian companies showing the undistributed profit during the year under review, including sums transferred to reserves. In the final tabulation of the results, the net assets of all companies were reduced by the amount of shares and debentures in companies shown as being held in Australia, the balance representing, approximately, the amount of outside capital invested in companies operating in Australia. In the case of income, the wealth and income card did not furnish a means of determining the total income derived from dividends of companies. The special returns of undistributed profit mentioned above was consequently taken as furnishing for Australian companies the net income not included in shareholders' returns.

The net assets of the Australian companies were taken from special returns obtained from these companies, such net assets being computed without deducting the liabilities to share and debenture holders. From the total net assets so computed, the aggregate amount of shares and debentures in companies shown on the various individual and other cards was deducted, the balance representing, approximately, the interest in Australian companies held by persons not resident, together with the margin, if any, between the share valuations of the several shareholders, and the valuation of net assets made by the company officials.

The income relating to non-residents was only just over one million, and the balance (for individuals) represented £48 9*s.* 7*d.* per head (£50 10*s.* 4*d.* in New South Wales, £50 11*s.* 2*d.* in Victoria), but, per return, it was £110.

The capital wealth is, of course, distributed between the States according to the States of domicile of the owners. The total of £1,643,000,000 includes the Australian property of non-residents, estimated as between £150,000,000 and £200,000,000, but does not include the property of Federal States or local governments, so that " the aggregate private wealth of Australian residents as at " June 30, 1915, was approximately £1,470,000,000, or nearly £300 per head."

The question of the number of persons owning wealth who made no return for the census received careful consideration, and it was decided that the whole measure of uncertainty was " negligible as compared with that due to unavoidable limitations in the estimate of values, and perhaps also as to the amount of income." Several classes of wealth were separately aggregated. " Cash in hand " came to nearly six millions, and worked out per head of the population at a considerably lower figure than independent estimates made in other ways. It was found that the " net assets " of the companies making no allowance for liabilities to shareholders and debenture holders was 286 millions, whereas the individual returns came to 61½ per cent. only, " the balance being presumably held by absentees." There is, of course, the margin of reserve value to which reference has been made, and the general question of plus or minus goodwill valued in the shares, but not included in the assets, is not cleared up. The aggregate value of land (as improved) was 984 millions, and, as unimproved, £456,000,000, which, so far as comparison could be made, was not out of accord with the information furnished by the land tax assessments. Knibbs' work provides a very exhaustive and acute discussion of the probate method in principle and in application, and he concludes that—

in Australia it cannot lead to satisfactory results owing to the absence of the necessary data regarding settlements. The defect introduces great uncertainty into determinations from probates, a fact forcibly illustrated by the necessity of applying a " correction " factor of about 1·6 to the results obtained from probates, in order to bring them into agreement with the estimates obtained by the war census.

He then makes a complete estimate of Australian wealth on the "inventory method," for 1915 (omitting public property, whether national or communal), and given in detail for each colony. The results aggregated for the Commonwealth are as follows:

		Million £.
1.	Land and improvements	1,105·6
2.	Livestock and agricultural machinery	123·1
3.	Manufacturing plant	40·0
4.	Mining properties and products	43·6
5.	Coin, etc.	44·4
6.	Railways and tramways and shipping	25·1
7.	Agricultural products	59·5
8.	Locally-manufactured products	54·3
9.	Imported merchandise	31·8
10.	Clothing, etc.	14·9
11.	Furniture, etc.	77·1
		1,619·5
	Private wealth per head	£327

The estimate for lands, etc., is based upon municipal valuations, and represents about two-thirds of the total; in several States which show unimproved or annual values only, the figures have been converted into "improved capital values" by the application of factors. It is probable that this valuation is correct within 5 per cent., certainly within 10 per cent. Annual statistics of the numbers of livestock, of the values of agricultural machinery, of manufacturing plant, etc., are then utilised. Mining properties are taken from statistics of paid-up capital and dividends, and may have a larger margin of error. For all the other items there is some substantial basis of estimation, and, taken by itself, the inventory result might well claim to be correct within very little over 10 per cent.

After adding collective wealth Mr. Knibbs concludes that the inventory method gives 1,760 millions, the census 1,643, and the probate basis 1,000 millions, and that the census probably gives an understatement owing to (1) its emergency character, (2) the incompleteness of some returns, and (3) the tendency for persons to suspect taxation motives. The inventory method, of course, covers wealth in Australia owned by persons not living there, but does not include Australian holdings of wealth abroad.

XIV.—Canada.

The estimates that have been currently used for Canada are Giffen's "guess" for 1903 of £1,350,000,000 and Crammond's figure for 1910 based thereon of £2,072,000,000 with an income of £259,000,000.

We have now available a reasoned inventory published in the *Journal of the Canadian Bankers' Association*, 1915, and made up with information from various sources:

	Million £.
Farm values	687
Mines and forests	164
Railways	231
Urban real property	618
Manufacturing machinery	62
Livestock and implements	182
Stocks of raw material	164
Carriages and motors	124
Specie	33
Investments abroad	20
	2,285

I think it is quite probable that this estimate is correct within 20 per cent., and I have accordingly classed it in Grade II.

XV.—Japan.

I have been unable to trace any recent estimate of wealth or income, or any reference thereto, in European literature, and Neymarck and Péret say definitely that there is none.

The income tax has now been in force for a good many years, and should furnish the basis of a provisional estimate, if carefully handled. Ordinary incomes under £40 are exempt, and there are numerous other minor provisions for allowances and exemptions which may be studied in the Financial and Economic Annual issued by the Japanese Finance Department. Mr. C. V. Sale in 1911 gave the following estimates for 1907:

1,125,000 families paying income tax .	£70 average income.
8,025,000 families not paying income tax	£24 10s. " "
9,150,000	£30

or a total income of £275,000,000.

I have obtained the weighted average wages for 1913 for nearly one million operatives, employed in fifty trades, with an average wage for each trade given by the official statistics, and find that it does not exceed £12 per head (including about 8 per cent. children), so that it would not appear that the above average could be increased, in view, especially, of the poor return from agriculture. Mr. Sale obtained an average of £27·8 gross produce per family in getting at the above figure. My estimate for 1914 would be on the following lines:

	£
Income taxed	78,826,000
Allowances and exemptions . . .	80,000
Evasion, 50 per cent. of the income in the lowest grade	18,000,000
And 20 per cent. in the incomes above .	12,000,000
	108,916,000
Increase, 8 per cent. from 1908 to 1914 .	7,132,000
Total for income-tax payers . . .	116,048,000
Lower classes—8,500,000 families at 24·10 average	208,000,000
Total (say)	325,000,000

The *Japan Year Book*, 1910, to which Mr. C. V. Sale has drawn my attention, reports an estimate by K. Yamashita, as at 1904, of the total value consumed, or money spent, by the Japanese, given in some detail and aggregating to a figure between £270,000,000 and £295,000,000. This " consumption" estimate rather confirms the above direct result.

There was an estimate of capital quoted in the same work, as at 1902–1094, of £1,328,000,000, or £29 per head, as arrived at by "financial authorities." Another estimate, for 1904, is referred to by Mr. Sale,[1] as appearing in a work by Igarashi and Takahashi ("National Wealth of Japan," 1906), which amounted, apparently, to £2,280,000,000, but I have been unable to examine it in detail. For 1914, on details obtained from the financial annuals and other sources, I put forward the following tentative effort:

	Million £.
Land	1,100
Buildings	400
Furniture, etc.	150
Specie, etc.	38
State debt raised at home	100
Local debt	30
Mines	30
Commercial companies	370
Other businesses	100
Savings banks	62
Private railways	6
	2,386

Say, £2,400,000,000.

In this I have excluded the value of State businesses (tobacco, salt, camphor, railways) on the ground that they are practically equalled by the State debt held by the Japanese.

XVI.—Argentine Republic.

According to "L'Anuario de la Dirección General de Estadística," published in 1910 for 1908, the private wealth was put as £1,260,000,000, or £212 per head. A valuation has recently been made by Alessandro Bunge, Director-General of the Official Statistical Office of the Republic, who, working entirely upon the inventory method, reached the following results:

[1] *Journal of the Royal Statistical Society*, 1911, p. 487.

Million £.

	1908.	1916.
Lands	562	918
Fixed plant	54	93
Buildings	519	588
Household goods and objects of art	130	147
Businesses	128	277
Agricultural profits and produce	108	108
Partly manufactured goods and goods in transit	130	143
Agricultural machinery	16	35
Industrial machinery	35	38
Metals	34	69
Railways	181	292
Tramways, telephones, gas, etc.	52	59
Ports, canals, docks	52	57
Total	2,001	2,824

The amounts per head on this valuation are high, viz., £336 and £356 respectively. It may be taken that this official's estimate for 1914 would be in the neighbourhood of £2,400,000,000, or about £340 per head.

XVII.—Summary and Conclusion.

I shall now proceed to summarise the foregoing in a single table (see next page), bringing the results as nearly as possible to the same pre-war point of time in 1914, and showing the approximate *per capita* amounts for comparative purposes. In the grading I have sometimes taken a lower class than the original estimate itself would require, if the adjustment to bring it to the level of 1914 has been considerable.

Comment is, perhaps, superfluous, but I may remark that the generally higher level of pre-war prices in America (which is reflected in the *per capita* average) cannot discount the immense absolute lead of the States in real wealth, or the rapidity of its increase. The difference between the United Kingdom and Germany is not so considerable as other writers have suggested, and the effects of the well-known thrift of

Summary Table, showing the Estimated Wealth and Annual Income of Various Countries at the Outbreak of War in 1914, *and the Approximate Accuracy of the Respective Estimates.*

Country.	National Capital.				National Income.			
	Estimates based on the work of	Approximation to accuracy: Grade.*	Amount in million £.	Amount per head of population.	Estimates based on the work of	Approximation to accuracy: Grade.*	Amount in million £.	Amount per head of population.
				£				£
United Kingdom	Stamp	I.	14,500	318	Bowley, Stamp	I.	2,250	50
United States	Official, King	II.	42,000	424	Official, King	II.	7,250	72
Germany	Helfferich, etc.	II.	16,550	244	Helfferich	I.	2,150	30
France	Pupin, Théry	II.	12,000	303	Pupin	II.	1,500	38
Italy	Gini	III.	4,480	128	—	IV.	800	23
Austria-Hungary	Fellner	III.	6,200	121	—	IV.	1,100	21
Spain	Barthe	IV.	2,940	144	Barthe	IV.	230	11
Belgium	Official	III.	1,200	157	—	—	—	—
Holland	Stuart	III.	1,050	167	—	—	—	—
Russia	Neymarck	IV.	12,000	85	—	—	—	—
Sweden	Flodstrom, Fochlbeck	III.	940	168	—	—	—	—
Norway	Gini	IV.	220	90	—	—	—	—
Denmark	Gini	IV.	500	176	—	—	—	—
Switzerland	Gini	IV.	800	205	—	—	—	—
Australia	Knibbs	I.	1,530	318	Official, Knibbs	I.	258	54
Canada	Bankers' Association	II.	2,285	300	Giffen	IV.	300	40
Japan	Stamp	IV.	2,400	44	Stamp	III.	325	6
Argentine	Bunge	III.	2,400	340	—	—	—	—

* Grade I. Estimate is not likely to be inaccurate to a greater extent than 10 per cent.
Grade II. Estimate is not likely to be inaccurate to a greater extent than 20 per cent.
Grade III. Estimate is not likely to be inaccurate to a greater extent than 30 per cent.
Grade IV. Estimate *may* be inaccurate to a greater extent than 40 per cent.

the French nation are apparent. The Japanese are making immense strides, but over 60 per cent. of their population are engaged in agriculture, and live on an amount per head which would be impossible in Europe—indeed, a comparison with this leading Eastern nation's figures brings out the considerations which I have urged in my opening paragraphs.

I should like to state that I do not pretend to have exhausted the subject, for it is obvious that a complete critical compendium of all that has been done in recent years would take up much space and be an exceedingly laborious task. But if I have succeeded in bringing some kind of order out of existing confusion, even over only a part of the field, I shall have achieved all that I set out to do. Apart from any interest there may be in present comparisons, I feel that in years to come, the year 1914 will be taken as the starting point for measuring many kinds of change and development, and that this contribution may have some small measure of utility to future workers. Adam Smith's words in the "Wealth of Nations" may form a fitting conclusion:

> Parsimony, and not industry, is the immediate cause of the increase of capital. Industry, indeed, provides the subject which parsimony accumulates, but, whatever industry might acquire, if parsimony did not save and store up, the capital would never be the greater. . . . Whatever, therefore, we may imagine the real wealth and revenue of a country to consist in, whether in the annual produce of its land and labour, as plain reason seems to dictate, or in the quantity of the precious metals which circulate within it, as vulgar prejudices suppose; in either view of the matter, every prodigal appears to be a public enemy and every frugal man a public benefactor.

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PRINTED IN GREAT BRITAIN BY THE WHITEFRIARS PRESS, LTD., LONDON AND TONBRIDGE.