

THE NATIONAL CAPITAL.

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I CANNOT adequately express to the Society my sense of the honour that has been done me in my election to the high office of President. I have only to glance over the names of my predecessors during the past ninety-six years to appreciate all that the associations of this office imply, for no higher distinction can be conferred upon any worker in statistical science, or upon any man in public life who acknowledges the value of that science in the conduct of public affairs. I am proud of having risen from the ranks and received this preferment before the end of the second decade of my fellowship. When I look at the giant statistical stature of recent occupants of the office who had been similarly promoted, I make no pretence, even to myself, that my elevation is a mark of that kind of technical worth. For when I feel overawed by such kinship with Shaftesbury, Russell, Gladstone and Goschen, I turn to the line of Newmarch, Booth, Edgeworth, Yule and Flux, and I am no less abashed. Therefore I only reflect that if a real concern for the well-being and high standing of the Society, and an affection for its traditions and associations, can confer any title, in that sense, at any rate, I may have some merit. And no President can ever have entered upon the office with a greater sense of a debt to be paid than I do, for what I owe to the stimulus and help of the Fellows and Officers, the *Journal* and the pure disinterestedness of all the Society's work, in my own mental development, I cannot overstate.

The past year has been one of progressive usefulness, without any

outstanding events to mark it in the history of the Society. It is coming more and more into touch with the activities of the world outside, and it is more and more relied upon as a source of guidance and a repository of accurate information. The growing use of statistical method in business is reflected in the increase in the number of Fellows and the wider field of usefulness of the Society's *Journal* throughout the world.

My predecessor, in his inaugural address, gave some most interesting details regarding the statistics of the Society's Fellowship over an extended period. I will, therefore, content myself here with saying that the numbers are being well maintained, despite the heavy loss through the death of many of the older generation. These losses include some notable names—no fewer than three former Presidents, Sir Alfred Bateman, Major Craigie and Sir Henry Rew, having gone from our roll. During the year, too, we have sustained a grievous loss in the deaths of Mr. Sanger and Mr. Soper, who gave valuable service to the Society, and will be greatly missed by us.

One of the most inspiring factors of the present situation is the number of young men and women who are becoming Fellows, and in these I am sure there will be worthy successors to the great names that have passed away. In this connection the formation of the Study Group amongst the younger Fellows for mutual help and education is of great significance. We hope that forthcoming *Journals* will give evidence of the real value of their activities. Our meetings have continued to deal with subjects of great and immediate social importance, and I think, apart from their value to us, they will be poignant evidence to generations to come of our present difficulties. The Measurement of Tariff Levels, the Limits of Industrial Employment, papers on Iron and Steel, Coal and Cotton—together make up a solid contribution to an Encyclopædia of industrial affairs.

My predecessor began his Presidential year with a Survey of the National Income, and correlated his own results with those reached by other methods by Professor Bowley and myself for 1924. It is with some trepidation that I embark upon a consideration of the kindred field of the National Capital. No real attempt to cover it in detail has been made since the war, although the literature upon war wealth and the capital levy from 1918 to 1923 brought forth a number of rough estimates, directed rather to determining the amount that would be involved under schemes of taxation than to the more far-reaching question of the amount of wealth in a more absolute sense, either in these islands or belonging to these islanders. In my Newmarch Lectures of 1920 I set out the reasons why such

an estimate was then well-nigh impossible, and even to-day those reasons have not lost all their force. For 1914 I was able to make the estimate, since generally accepted, of £14,300 millions, with an extreme margin of doubt of about 13 per cent. But to-day the possibilities of accurate estimation are much more limited. In the first place, the conditions year by year have had nothing like the old or pre-war stability, in interest rates, and in general economic conditions. In the second place, the published income-data upon which to work are given in a much less detailed classification; and in the third, some of the problems of principle, introduced by the special weight of the public debt, and by the facts of rent restriction and housing subsidies, are well-nigh metaphysical in their subtlety and elusiveness.

The figures on which the National Income is estimated are definite for a particular period of time, whereas the National Capital requires not only such a definite time basis, but also an "outlook" for capitalization of the figures of income. It is obvious that by the time the income figures have become available to us the capitalization outlook existing during the period to which they actually related may have completely changed. Indeed there has been no point of time since the war when the outlook existing *at the period* over which any particular figures extended has not been completely falsified at the time of availability.

For several years after the war the income figures were seriously affected by the Excess Profits Duty payments, and by post-war inflation and the subsequent slump. The profits for the relatively normal year 1924 could not be dealt with in 1926 on the ideas of 1924, because in 1926 the changes due to the reintroduction of the gold standard and serious industrial troubles had altered the whole outlook. Now the future outlook existing in 1928 cannot easily be applied to the figures of 1928, because 1930 has completely changed in the rates of interest and other capitalizing factors. But at some point or other, we must frankly make the attempt, even though the capitalizing factors are out of date.

The elimination of Southern Ireland from the figures presents some statistical problems, especially for comparative purposes.

Some of the older Fellows of the Society will remember that before the war we had an exciting hunt for a large missing piece of National Capital, between the estimates arrived at by the direct or "Giffen" method and those given indirectly from the data upon estates, with a "Multiplier" computed by Sir Bernard Mallet and Mr. H. C. Strutt. This led to many refinements of the "Multiplier," and much discussion of the effect of *inter vivos* giving. I made some attempt in 1916 in *British Incomes*, to account for the

difference, and later in the *Economic Journal*, 1918, in *The Capital Wealth in the Hands of Individuals*, and I think I then set forth the true reason why there must always be a difference between the two methods, because what they are really attempting to measure is not actually the same thing. So long as businesses set aside considerable sums in secret or even in open reserves, an aggregate of the valuation of shares arrived at by stock exchange methods (the Estate and Multiplier method) will rarely be the same as a total valuation of the business as a whole, as a going concern (the direct or Giffen method). This factor of difference was given greater precision in the evidence before the War Wealth Taxation Committee in 1920. We are now in a position to consider what gap between them is a reasonable one, and the different totals can be brought into the area of reasonable mutual support rather than of incessant challenge and cynical mutual destruction. It would demand an undue prolongation of this address for me to give the arithmetical data for a new computation of the "Multiplier" with the latest death-rates in the different age groups, and in different social classes. Moreover, the ground has been covered recently in Mr. J. C. Wedgwood's *Economics of Inheritance*.

Mr. Wedgwood's calculation of the "Multiplier" was 34 for 1921, but he raised it to 37 to allow for different death-rates in the upper and middle classes, and applying it to 1925-6 values reached a figure of £18,000 million (including an estimate of £1,000 million for those under the Estate Duty limit). "This figure of course includes War Loan and excludes communal possessions, and is not comparable with estimates of the value of concrete capital possessed communally and individually by the inhabitants of Britain." The Estates passing in 1928-9 were £525 million against £456.3 million in 1925-6, so that Mr. Wedgwood's figure brought up to date, *pro rata*, would be £20,050 million with a lower limit, if his correction of the arithmetically ascertained multiplier is not justified by facts, of £18,500 million. These figures apply only to Great Britain and do not include Northern Ireland.

British Government securities account for 13½ per cent. of wealth passing, and therefore the elimination of this pseudo-wealth reduces the figures to £17,300 million (lower limit, £15,750 million).

In writing upon the National Capital in 1921 I set out the following uses to which estimates of the National Wealth and Income could be put :

(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) Considerations 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.

I then dealt with the different considerations arising on these different uses, and I may repeat the distinctions between the two chief definitions of National Wealth: "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.' It is the latter sense—the wealth of the inhabitants—that is mainly under consideration. 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 capitalized from the home country may be poor judged by the wealth of its inhabitants, but rich in its resources and the actual yield within its borders."

I then took up the estimate for 1914 given in *British Incomes and Property*, £14,319 million, ± £1,867 m., and examined the reasons for differences between this and other estimates that had been made for that year. And I referred to the re-examination in 1918 in the *Economic Journal* from quite a different angle, that of wealth available in the hands of individuals, in corroboration. I criticized adversely the rough estimates made by Mr. Crammond and Lord Arnold of £24,000 million for post-war wealth, made by pushing up an unsatisfactory pre-war estimate by the change in the price level, and then adding the whole war debt. My own conclusion for 1920–21 after giving all the defects in material and difficulties of principle then existing, when "values" were changing most rapidly, was as follows:—"While I prefer to give no estimate of capital wealth at the present time for the reasons stated, I should like to add that, in my judgment, it cannot *exceed* 19 to 20,000 million pounds, and is probably much less.

“The aggregate of individual wealth has moved from 11,000 millions in 1914 to about 15,000 millions at June 1920. Of course these are merely expressed in money values—the increase in real or intrinsic values is certainly almost negligible.”

The question of the inclusion of the National Debt, except as income in the hands of individual holders, has always been recognized as a difficult matter. With the magnitude of the debt to-day the difficulty has not become less, but the importance of facing it has become greater. Giffen thought the effect of capitalizing the whole of Schedule “C” would be to reckon the debt “twice over” :—

“The National Debt is a mortgage upon the aggregate fortune of the country. As we may assume it to be practically all held at home, we may reckon up our whole estate without deducting the debt, whereas we should have to deduct it if it were held by foreigners; but while we do not deduct the debt from the total of our estate, neither can we add it without falling into error.” At a later date he modified this view :—“Of course, to each individual holding a portion of the National Debt, the holding is property. . . . On the whole the reason assigned is a good one. But I should not censure very much anyone who included the debt as a part of the capital of the community . . . the money expression of all the other capital of the community is less than it would otherwise be by the amount of the debt . . . if there were no debt, lands, houses, etc. would exchange for rather more than they now do. The debt in this view represents a certain distribution of part of the capital of the country, and we do not get a complete view of the capital unless we include it.”

It must necessarily become of importance when we compare our figures with those of other countries or with those of other periods for our own country, and different people have made different computations. In 1914 I followed the practice of deducting the debt from the value of national and local property. After having included the income in the hands of individuals, my comment on it in *British Incomes* was on the following lines :—“If we raised money individually for war, by borrowing from persons with loanable resources, on the security of our possessions, the position would be that there would be an annual interest charge upon our incomes, *from which we should deduct tax*, and the recipients would have no “income” to return for taxation. Thus the capitalization of our property values would cover the capital of the lenders. If the capital lent had not been blown away in shot and shell, it would be represented by additional capital, goods, and permanent expenditure, which would come into the national valuation, but, as it has disappeared, no such

additional capital appears. So if a nation's savings are accumulating at the rate of £300,000,000 per annum, and a war breaks out which is just financed by these savings for three years, the total valuation should remain constant for those years. It would remain constant by the method indicated. But in fact we do not pay this interest as such—we pay taxes—and to capitalize the interest received out of those taxes is to add to the national valuation where there is no real addition; *unless the value of all incomes* (or the number of years' purchase) *has pro tanto, fallen*, the result will be too great. Giffen rather suggested as his view that such a depression in value exists. If our values were settled by a foreigner, with catalactic brain, seeking an income in Britain or elsewhere, the existence of this non-beneficial or onerous charge would lower his estimation of possibilities here relatively to countries with no such burden, other things being equal; but as most eligible competitors would have similar drawbacks the difficulty is minimized. However, values are mainly determined by internal competitive considerations, and although a differential burden upon ownership of capital with no burden upon earnings might alter their relative positions, the fact that *this burden* is fairly distributed on both classes with no possibility of shifting leaves the relative values unaltered. Values as a whole, however, might change relatively to the general price medium, gold; but, even there, credit facilities have such a much larger bearing upon that issue that a depression could be easily offset by a more highly developed credit system. "Altogether it appears probable that any effect of a long-standing debt, like in character and amount to those generally found, would be, if existent, in the direction of depressed values, but certainly not *pro tanto* with the debt involved. It is therefore duplicating values almost to the entire extent to add Consols to the full fee simple value of national property." I went on to point out, however, that the National Debt was a mortgage upon earned income and upon unearned income, both being subject to tax for the payment of interest, and suggested that it might only be necessary to reduce the value of real property by the proportion of the debts secured thereon instead of by the whole debt. On the whole, I still adhere to the principles I then laid down.

But so long as the taxation raised from consumption, wages, salaries and non-capitalizable items leaves no margin over the expenditure which may be regarded as directly benefiting these sources rather than capital assets, then it is convenient to consider that the repayments of mortgage and even the interest thereon are charged upon capital assets. Viewed in another way, if repayments of debt are wholly covered by the yield from estate duties, then

the theoretical "spread" over all classes of earning-power is of less importance.

When we are discussing National Income the difficulty is not so great, because we can consider the volume of material goods as a "flow" during the year, and reflect that the debt charge merely alters its ownership and does not increase the quantity of goods. We can, therefore, as was done by Dr. Bowley and myself, express the total in two forms, one of which for certain calculations includes the individual incomes from interest and pensions, while the other excludes them. One American writer has, however, elected to consider that the debts and debt charges are wealth and income respectively in an absolute sense, inasmuch as they have created an "asset" of security due to the war, but my answer to this is that the security or asset created has no relation whatever to the duration of the war, and to its cost, and, moreover, that the security is reflected in an enhanced multiplier, that is, a general lower rate of interest applicable to all other incomes, which increases their capital value. To add in the cost of the war is, therefore, to duplicate the value, or make an excessive aggregate.

Now that we have expenditure on such a terrific scale to account for, we must ask seriously whether the general capitalization process of British profits is not seriously affected by the existence of heavy taxation for the debt. If it is, then the capitalized value of our assets in general is lower than it would otherwise be; but I do not think that we can trace with any certainty that this is the fact by comparison with France, Germany and the United States. Obviously, however, the case can be reduced to an absurdity, for if the tax was still much heavier, the profits prior to taxation could not be capitalizable on so high a figure as now. The sale of our assets to the independent foreigner would undoubtedly amortize the burden. This may, perhaps, show itself in the reluctance of a foreigner to buy an English investment bearing the heavy income tax, except that we disguise it under the grievance of double taxation. But inasmuch as this is a mere piecemeal consideration, and the purchaser of the whole of Great Britain does not, *de facto*, exist, the balance of convenience is not to try to quantify such an elusive factor; it means a hypothetical increase in the rate of interest used for capitalizing. The matter is perhaps seen a little more clearly in perspective if we consider the case of a town very heavily rating its property and using the money (*a*) to pay the interest on the cost of a communal building, or (*b*) to pay heavy doles with no tangible result. If we were, from outside, paying a sum of money for such a town, we should, at any rate, during the period while the interest and sinking fund were being raised through the rates, add in the

value of the town property created and deduct the outstanding debt, and we should assume that the extent to which the values of property in general were depressed by the excessive rates charged was offset by the extent to which those *values were enhanced through the usefulness* to them of the buildings, etc. When, however, the whole debt was paid off and the rates reduced, the valuation of the new assets would remain the same, but the purchase price of the town would have increased. This matter is analysed further in Appendix II.

Sources of Material (vide Appendix I).

The first basis of the direct valuation is, of course, the income brought under assessment to Income Tax by the Inland Revenue Department, and I take the last published report for the year ending 31st March, 1929. The assessments are those made in 1927-8, and although they include some assessments made for previous years, assessments relating to 1927-8 will continue to be made for some years to come, and, broadly speaking, the assessments made *in* a tax year tend to approximate to those *for* a tax year.

I am not overloading this address with the details of all the computations, or with minor considerations which have already been dealt with at length elsewhere. Moreover the treatment is broad, inasmuch as it is idle to burden you with meticulous points in certain parts, the exactness of which is lost in relation to the large approximations which alone are attainable in other parts of the field. I have therefore been content to give most of my space to considerations of principle which are introduced into the valuation procedure for the first time.

Real Property.

For the houses assessed under Schedule A we have two sets of statistics divided for the three areas, (a) the annual values of 1927-8 and (b) the new property first assessed in 1928. The gross figures are first taken, reduced by the items of repairs and the reductions and discharges, and we reach net figures of £220 million for England and Wales, 23.5 for Scotland and N. Ireland. The multipliers used for getting the gross capital values are taken as the average number of years' purchase for freeholds (Table 16), 17.5 and 11.7 respectively, applied to the net values, give us a total value of £4,125 million, or with the new houses built in the year 1928, £4,238 million. The figures arrived at by using the gross figures (less over-charges) are materially less, though for technical

reasons are to be preferred. Now these results are markedly low judged by any test of the comparative cost of houses before the war, and at the present time for middle-class property, so I deliberately choose the higher figure, especially since the multipliers are low according to tests by Building Society valuations. The gross total in 1914 was £232.6 million (to include the whole of Ireland), and the multiplier 17.4, so that the values have risen by about 60 per cent., but the combined multiplier for the net is reduced to just below 17. But the difference between gross and net now is much greater than before, owing to the very high cost of repairs as a proportion of annual value. Weekly property is largely subject to rent restriction, and with high rates of interest to-day, the capital value to purchase is kept very low. The very large houses sell at low rates and their liability to remain empty is considerable. Business premises are not materially advanced in amounts in the Schedule A assessment, but inasmuch as any residue of value merely goes to swell the profits under Schedule D, any loss of value here is made up elsewhere. The treatment of restrictions and subsidies is now doubtful. The economic effect of restriction was examined by me at some length a few years ago in *Current Problems in Finance and Government*, p. 114, and I concluded:—"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." The bearing of this upon capital values is that if the income from rents here restricted gives a restricted capital value, the unseen enhancement of other people's incomes elsewhere, when capitalized, tends to balance the deficiency. In so far as it is an enhancement of non-capitalized earned incomes, it of course fails to come out at other points in the wealth valuation; the purchasing power of the worker may indeed be increased thereby for other things, but this increase only takes the place of the purchasing power which the house-owner would have exercised, and there is no *net* addition to purchase of goods *other* than house service, and, therefore, no increased trade profits. The best way of putting it is that a large number of people have small unseen additions of beneficial occupation to their incomes that represent the difference in actual and potential rent which is visible immediately, when, on a change of tenancy houses are decontrolled. These unseen items are not capitalized. The subsidies represent perhaps a contribution to cost which is not to be permanently reflected in capital values, although if the price of building had remained as high as when the majority of post-war houses were put up, the rents paid on subsidized houses

would have been low enough to allow of a hidden beneficial occupation to the tenants in the same way. Meanwhile much of the public debt remains which has allowed this condition to exist, and if it is treated as capital in the hands of lenders and deducted again as a communal debt, with no corresponding physical asset, we shall virtually have taken the line that the subsidy itself has added nothing to the national wealth.

On the whole, I am disposed to think that house property, including all buildings, except farm buildings and such buildings as railway property, should be put at a figure of £4,500 million.

Coming now to land (which includes farm buildings and farm houses, tithe rent charges, woodlands and sporting rights), there is a gross total of £51 million, the figures for Great Britain having advanced upon 1913-14 by only about 12 per cent. This is reduced to approximately 45.5 m. £ for actual assessment and 38 m. £ after allowing for repairs. The multipliers are 17 and 21½ respectively, but the margin between the freehold gross and net annual values to which these figures apply is different from the margin between gross and net for income tax, since it includes, besides repairs, tithe and all kinds of other charges. The application of 17 to the gross gives £773½ million, and the *net* multiplier, suitably modified for these different conditions, does not give a very divergent result. But it is doubtful whether this method brings out enough for the values of undeveloped sites, and I put the total accordingly at £950 m. ± 75. (The greater figure of 1914 is accounted for by the substantial agricultural land values of the Irish Free State then included, and by the much higher multiplier due to the lower general rates of interest). (The astonishing variations in the number of years' purchase and the resultant capital values at different times in the past eighty years are commented upon in detail in *British Incomes*, p. 381, etc.)

The value of *farmers'* capital is discussed in *British Incomes*, and I have taken a conservative figure now in £450 m. ± 40, having regard to the 1928 level of prices. (*The Agricultural Output of England and Wales*, 1925, gave £815 m. for the land and £365 m. for the farmers' capital.)

Trading profits assessed under Schedule D.

It is at this point we meet with the largest single mass of the national wealth. Many of the old details are lacking, notably the division into Joint Stock Companies and private businesses, which greatly helped pre-war computations; but certain new features give some assistance. The chief figures are:—

	England.	Scotland.	N. Ireland.	Total.
Manufacturing Productions and Mining Industries	425-43	43-28	4-06	472-77
Distribution, Transport and Communications (excluding Railways)	412-46	38-90	5-54	456-90
	<u>837-89</u>	<u>82-18</u>	<u>9-60</u>	<u>929-67</u>
Deduct Wear and Tear	64-96	6-74	0-77	72-48
	<u>772-93</u>	<u>75-44</u>	<u>8-82</u>	<u>857-19</u>
Deduct for Retail and small businesses not run by limited companies ... ..	...	...	...	250
				<u>607</u>
Deduct also—proportion of overcharges ... ..	...	...	...	127
				<u>127</u>
Net sum to be capitalized ... ..	...	...	...	<u>£480 m.</u>

Before proceeding to deal with this by reference to Stock Exchange valuations, it will be well to look at its "share" composition. For this purpose I use the large sample published quarterly in the *Economist*, under the title "Industrial Profits," and that most closely approximating to the assessed profits in question is the total of the accounts published in the year to June, 1928.

The sample has the following total capital:—

Debenture	£402-18 m. paying 5-1%
Preference	602-01 " " 5-5%
Ordinary	998-72 " " 10-5
	<u>2002-91</u>

The total profits are divided:—

Debenture Interest	£20-51 m.
Preference "	32-88 "
Ordinary "	104-64 "
To Reserve "	35-82 "
	<u>£193-86 "</u>

which equals 9-67 per cent. on the whole capital. If the sample of shipping and tramways is taken out, it is almost exactly 10 per cent. Nothing can be done with this as a multiplier, however, since it refers entirely to the yield on normal and subscribed capital, and does not indicate the market value capitalisation.

The assessed profits will on this basis be divided thus :—

Debenture Interest	51
Preference „	81
Ordinary „	259
To Reserve „	89
	<hr/>
	480
	<hr/>

But if we remember that the assessed profits do not include the annual value of all property and the income from outside securities which often represent the reserve funds, while both of these come into the sample profits, it is probable that the debenture interest would nearly be met by these two sources. Then the total is better divided :—

Preference	91
Ordinary	289
To Reserve	100
	<hr/>
	£480 m.
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In order to determine the multiplier for this main group for commercial and industrial profits, I have taken Stock Exchange lists of quoted securities during 1928 and classified them according to yields under the main headings of debentures, cumulative preference and preferred shares, and ordinary shares, in a large and haphazard sample. I have also, for the purpose of closer inspection, divided them into those where the issue of stock is under a million pounds, and those where it is a million pounds or over. I have carried the sample sufficiently far to get reasonable statistical regularity, and the table below shows that in each case the mode of the larger class is a definite percentage yield below the mode of the smaller class, no doubt due to great negotiability of the larger stock, greater publicity, and probably also to more definitely known reserves and future potentialities of the large concerns. In each case the weighted average is not very different from the mode. Debentures show a weighted average in the smaller class of just under 5.9 and in the larger class of 6. The cumulative preference shares yield in the smaller is 6.66 and in the larger 6.1, or, taken together, 6.56; in the ordinary stock, over 7 for the small and only 5.1 for the large, due to a disproportionate number in the lowest yielding stocks, and in these presumably future prospects were the main factor in price. The average for the ordinary shares over all is about 6.7 per cent.

YIELD PER CENT. ON PRICE.	DEBENTURES.		CUM. PREFERENCE AND PRIC. SHARES.		ORDINARY SHARES.	
	Under 1 m. £.	1 m. £ and over.	Under 1 m. £.	1 m. £ and over.	Under 1 m. £.	1 m. £ and over.
Up to 4 ...			4	1	17	12
Over 4 to 4 ¹⁰ ...	2				11	5
" 4 ¹⁰ to 5 ...	7		2	2	17	14
" 5 to 5 ¹⁰ ...	38	11	19	12	15	8
" 5 ¹⁰ to 6 ...	42	7	49	10	18	6
" 6 to 6 ¹⁰ ...	17	6	58	8	18	14
" 6 ¹⁰ to 7 ...	14	4	56	6	33	4
" 7 to 7 ¹⁰ ...	5	1	25	7	22	4
" 7 ¹⁰ to 8 ...	5	1	21	1	30	1
" 8 to 8 ¹⁰ ...	1	0	8	2	17	3
" 8 ¹⁰ to 9 ...	1		7	1	16	
" 9 to 9 ¹⁰ ...			9		16	
" 9 ¹⁰ to 10 ...			3		12	
" 10 to 10 ¹⁰ ...			1		4	
" 10 ¹⁰ to 11 ...					2	
" 11 to 11 ¹⁰ ...			2		2	
" 11 ¹⁰ to 12 ...					1	
" 12 to 12 ¹⁰ ...	1		1		1	
	133	30	265	50	252	71

Now it must be remembered that these multipliers cannot be applied simply to the aggregate profits as now divided, for two reasons. In the first place, the aggregate profits assessed under Schedule D exclude two of the most secure elements, viz. the business premises assessed under Schedule A and the business reserves invested in securities outside. These two items together will be very considerable and go far to meet the lowest yield classification of debenture interest, which is about one-fifth of the whole. The proportion of the assessed profits, therefore, to be dealt with by the lowest multiplier is very small. In the second place, the assessed profits include the whole of the sums put to reserve in the year, and to these no multiplier at all can be attached, though they enter into the Stock Exchange values of the ordinary shares, and, of course, to some extent of the preference. As a result of these considerations we can either apply these multipliers direct to the appropriate portions of the assessed profits, or we can adjust the multiplier and make it appropriate to the whole of the assessed profits—two ways of doing the same thing. In the one case we make the following multiplications :

$$£91 \text{ m.} \times 15.3 \text{ y.p. and } £289 \text{ m.} \times 14.9 \text{ y.p.}$$

and in the other we adjust the total multiplier as follows :

$$11.88 \text{ y.p.}$$

They bring out the Stock Exchange value of these assessed profits to £5,700 m. \pm 225.

The next group is the Retail Distribution (part of the general item of £456.9 m.). This is taken at £250 m. as an estimate which I form on my old acquaintance with the existing proportions, and the net figure, after deducting a proportion of the overcharges, is £210 m. This I should divide as to individuals and firms £160 m., and as to Companies £50 m. The £50 m. is capitalized on the same basis as the other businesses, say £600 m. The £160 m. is represented by an enormous number of people, probably upwards of half a million, with a very small amount of capital each, for the major part of each assessment represents personal earnings. The Giffen method was to capitalize at fifteen years' purchase one-fifth of the profits, and I should put the capital at about £350 m., making £950 m. \pm 100 in all for this group.

Finance, Professions and other Profits.—£194.2 m. less £39 m. for reductions = £155 m., of which the proportion for professions is about one-fourth. Finance business should then be about £116 m., capitalized at £1,400 m. \pm 100, and the balance for professions, at between one year and a year and a half, since we do not capitalize purely personal goodwill, = £50 m. This group, therefore, totals to £1,450 m. and the total valuation of these three groups of profits, up to this point, is $5,700 + 950 + 1,450 = \text{£}8,100 \text{ m. } \pm 425$.

Unrevealed Values.

Now although we have avoided Stock Exchange capital or dividends, and taken actual profits to be multiplied, we have not yet valued the businesses as going concerns, with full inside knowledge, but only according to Stock Exchange knowledge, and with that discounting of the portion of profit not paid out, compared with cash dividends, which goes on in the investor's mind.

In the old days this valuation of profits by Giffen and others proceeded simply by way of a multiplier for all profits without the process of referring it to the test of actual facts which is now incumbent upon us. I do not apologize, therefore, for this detailed variation of time-honoured method.

There is an official note upon this subject of "unrevealed value" in the Appendix to the Report from the Select Committee on Increase of Wealth (War) 1920, p. 255, Memo. No. 5 which deals with it very fully, and the only feature that has been modified since, in my judgment, is the greater extent to which the stock market prices have "picked up" the unrevealed value, owing to the rising public estimation of future capital appreciation, as against immediate cash dividends, under the pressure of high direct taxation, and of stock

exchange operations as a high-class pastime. This was carried to such a pitch in New York recently that it is quite certain in many cases the public put a higher estimation upon share prospects than any purchasing management, taking the whole business and being responsible for earning dividends thereon, would have done, and therefore the margin between aggregate share values and the "going concern" values was all the other way. In the three actual examples, given in the official note, the excess of assets over market capitalization, in 1918, of £1,800,000 was £330,000, or 21 per cent. Now these were picked cases to illustrate a principle and not to point to a mode; they are for a year of great instability when the net valuation of assets would most certainly give too favourable a view of goodwill, and included many fixed assets at high purchase prices. I should, therefore, hesitate to put unrevealed value in 1928 at higher than $7\frac{1}{2}$ per cent. That it existed to a material extent I have no doubt whatever, for in the past twelve years I have been personally involved in the acquisition or sale of some scores of businesses upon the basis of inside knowledge and accountancy, and have therefore a distinct impression of the order of magnitude of this factor.

Applying this conclusion and adding $7\frac{1}{2}$ per cent. to £7,700 m., the total of £8,100 m. for these profits becomes £8,675 m. \pm 635. The next group is Railways in Great Britain and Northern Ireland, and this is capable of very close valuation at stock exchange prices (without regard to the immediate profits assessed to tax, £29.2 m., and with no regard to the much higher replacement costs, and the capital value of £1,100 m.). I take the mean valuation of April, 1927, and March, 1928, and find it to be £860 m.

" Interest on War Securities not taxed by deduction at the source	£96 m.
Interest under Schedule C	151 "
Total	£247 "

I have computed the capital value of this interest at the several market prices obtaining in 1927-8 for the different stocks shown in the official abstract, and reach a total of £4,866 m. \pm 40.

Dominion and Foreign Securities and possessions. Interest £83.9 m., similarly give a capital value on sample prices of £1,290 m. \pm 100. (The total of our foreign investments is of course quite different, much more being included under the main item of Profits.)

Loss and Evasion.

It is at this point we should consider also (1) Businesses making continuous recent losses; (2) Evasion.

(1) In *British Incomes* (Chap. VI) I dealt fully with the losses which were at that time not reflected in the average assessed profits, and the set-offs for them in the assessed profits which were not commercial profits. The net result was then that the gross assessments were 4 per cent. in excess of commercial profit, after taking the losing businesses into account. (There is also valuable official information as to the proportion of losses for recent years, in the Colwyn Committee's report and Appendix.) Dr. Coates' official tables showed the *turnover* resulting in a loss (on the average of a good and a bad year, as 8 per cent. of the total. Now if, in capitalization we deal only with the businesses making profits, we appear at first sight to ignore the tangible asset value of losing businesses, including land, buildings, investments, plant, debts, etc., which in the aggregate must be considerable. But in this connection we must remember (a) that the land, buildings and investments are already covered by our valuation elsewhere; (b) that the Stock Exchange rate of valuation in the share market always allows for a risk of loss—for the rate of interest demanded tends to vary with the riskiness of the class of business—and that generally a great deal of actual specific loss is pooled, by insurance, throughout business (*vide* my article on "Taxation, Risk-taking and the Price Level," *Economic Journal*, 1928); (c) our Stock Exchange multiplier is therefore lower than it would be if there were no losses in business, but this tends to be compensated by the fact that our aggregate of assessed profit is higher than it would be if we took account of all losses and deducted them first, before capitalization. The compensation is, however, in my judgment not complete, and I believe that the rate of interest tends to be influenced downwards more by future prospects of profit in promising business than upwards by bygone experiences of losses, especially in staple industries. This is a mere psychological judgment. But I am disposed to make a small net addition for the value of unassessed assets of declining or moribund businesses, not covered by the net effect of the two factors of capitalization. (2) So far as evasion is concerned, all the evidence (*e.g.* the Royal Commission on Income Tax, 1920) has been that it became much worse after the war, but the administrative machine has been so much strengthened now to deal with it, that I doubt if it can possibly exceed 15 per cent. over the area in which it can reasonably exist. Now this area is much smaller than is generally supposed and lies mainly in the field where over capitalization is lowest. For the vast mass of profits assessed on large companies with audited accounts it can be ignored. It may be taken that the area of the capitalization to which it applies is not more than one-fifth.

An allowance of 5 per cent. for both these factors is in my judgment ample.

Our valuation for this section of the national capital has now become, therefore:—

(a) General profits	£8,675 m. ± 635
(b) Railways	860 m. —
(c) Interest on War Securities ¹ ...	4,866 m. ± 40
(d) Dominion and foreign Securities ...	1,290 m. ± 100
Special Allowance on (a) and (d) ...	475 m. ± 100
	£16,166 m. ± 875

The Income of the Non-Income-tax-paying Classes derived from capital was taken in 1914 as a capital value of £200 m. ± 50. It must be remembered that in taking all the gross figures in the foregoing estimates we have covered most of the *forms* of investment and savings, and this item is a residual for such things as the stock of very small traders, tools, etc. I refer here to Chapter III of the *National Income, 1921* (Bowley and Stamp), and to the fact that the numbers in this class, owing to the change in the value of money between 1914 and 1928, are much smaller, the effective exemption limit £150 now being represented by less than £100 then. An estimate of £100 m. capital is the best guess I can suggest, but at this point the national savings certificates should be included, making £475 m. in all.

Furniture, Motor-cars, Works of Art, etc. (movable property yielding no income). Vide *British Incomes*, p. 400. Estimates based on: (1) the former estimates, increased for population and price level, (2) a ratio to house values, (3) the estate duty valuations and (4) fire insurance, leads me to think the capital will lie between £1,300 m. and £1,700 m., and I take £1,500 ± 200 m.

In the previous estimate there was an item, "Foreign investments not brought into charge." But the *legal* charge now covers income arising abroad but not remitted, and only the question of general evasion—of income tax, not sur-tax—arises.

Government and Local Property.—This was put by Giffen at £400 m. for 1878 and £500 m. in 1888; by the *Economist* at £630 m. in 1909, and by Money at £450 m. *net* (after deducting the national debt and local loans) in a detailed survey. But both Giffen and Money made double entries when they included profit-making concerns (gasworks, waterworks, etc.) in public ownership. In *British Incomes* I dealt with the road problem, and showed that a large part of public expenditure serving specific properties must be taken as valued in the valuation of those properties. Such con-

sideration as I have been up to the present able to give to this section leads me to a figure of £900 m. \pm 300 (but see also Appendix II).

Deductions from the Gross Capital Values.—(a) The capital value of profits and interest included in the foregoing but owned by persons abroad. This is estimated at £500 m. \pm 150 (*vide* the *National Income*, 1924, p. 46).

(b) Charges to be paid ultimately out of taxation upon the profits capitalized in the foregoing. The total national debt at March 1928 was £7,631 m., including £1,095 m. external debt, of which £952 m. is the total of the United States loans, which we can regard (as at March 1928) as equated by the reparation settlement with Germany. This makes a net £6,679 m. The sums due to us from Dominions and Allies are £2,066 m., including Russia £887 m., or net £1,179 m. These are in relief of our debt £1,179 m., leaving £5,500 m.

(c) Similar charges which are counted as individual wealth in the hands of the recipients above, but which have to be discharged out of local rates. The local debt is approximately £900 m. This makes £6,400 m. in all (\pm 200 m.). There is room for discussion, with a nice balance of argument, whether these valuations should not also be made on a present price basis, and not a face value basis, inasmuch as a large part has been included as wealth on the latter basis in the gross figures. There is also room for examination whether some of this is not held abroad, and included in the deduction already made, which would increase the net estimate. Or alternatively whether sufficient allowance has been made for total capital including war debt owned abroad.

Summary of Detailed Estimates.				Statistical Approximation.		
				m. £.	+	-
Real property—Buildings	...	...	4,500	300	200
Land	...	...	950	75	75
Farmers' Capital	...	...	450	40	40
Profits and Interest	...	...	16,170	875	875
Profits below Income-tax level	...	...	475	50	50
Furniture and movable property	...	...	1,500	100	300
Government and local property	...	...	900	300	100
			24,945	1,740	1,640	
Less belonging to people abroad	...	...	500	150	150
Gross wealth	...	...	24,445	1,890	1,790
Deduct Debt charges	...	...	6,400	200	200
Net wealth	...	...	18,045	2,090	1,990
				say $\frac{1}{3}$ rds		
				\pm 1,350		

Accepting the fact that both concepts, gross and net, have their usefulness, which has claim to priority as our chief and general reference when we refer to National Wealth? A simple test will give the answer. If a man stints consumption and saves £1,000 it finds its way into a new factory, building or other item in the inventory, and the result is that both gross and net are increased by £1,000. If the State compels him to save by taking his £1,000 as tax, and pays B, a war-loan holder, £1,000 off his loan, then B has to invest it in some new asset, and the appropriate item in the inventory goes up £1,000, but the Interest item goes down £1,000, and the gross figure is *unmoved*. But the debt charge is reduced £1,000, and so the net wealth goes up £1,000. Obviously then the net wealth is sensitive to *all* saving additions, and the gross is not.

Comparison with Valuation by the Estate Multiplier.—In comparing these figures with any estimate arrived at by the multiplier, we have to deduct from the £24,445 m.—(a) The evasion allowance and unrevealed values, say £1,050 m. (b) The capital value of charity and corporate properties not coming into the estate duties. The sum “caught” in the Income Tax assessments is £38 m., and from this and the Corporation duty, I imagine that the capital value not coming into estate duty would approach £1,000 m. (c) The entry for Government and local property £900 m. These total to £2,950 m., and reduce the gross figure to £21,495 m. ± 1,350, which includes Northern Ireland, approximately in the ratio 22,076 : 231, and thus the total for Great Britain is about £21,275 m., which falls to be compared with the rough figure of £20,050 m. given on page 4. A detailed examination of the possible reasons for this difference is, of course, beyond the limits of this address, but inadequate deduction for War Loan held abroad would be the most likely one for a part of it.

General Conclusions.—I have not attempted to check the estimate by the inventory method which is so useful in the United States, because the material with us covers so small a part of the whole field.

I think it may be conceded to me that I have not been lacking in boldness in making this attempt. But inasmuch as we have, up to the present, relied upon mere modifications and additions to my original structure of 1914, it may well be urged that, upon rebuilding being necessary, it is “up to me” first of all to attempt it. Certainly I have lived with the subject in its various aspects for a good many years—it was perhaps the earliest upon which I took an active part in this Society—and the need for an inaugural address seemed to remove the last excuse that I could put forward for not dealing with it. This initial effort is therefore on the broadest lines, and many of the details cry out for particular research. I

shall be glad to receive further detailed information, criticism or suggestions, especially before printing in the *Journal*, but I have found in the process of going over first approximations for further refinements, that these tend to offset each other, and there is a curious stability about the large totals.

My purpose has been forward-looking rather than retrospective comparison. We may indeed try to allow for the change in price levels since 1914 and the off-setting change in interest, and then deduct 4 per cent. for the figures of the Irish Free State no longer included. It is possible to say broadly that the position is not inconsistent with our having spent all our new savings for five years on war, having sold over a quarter of our original foreign investments, and having saved in the eight post-war years 1920–27 at the generally estimated rate of £475 m. per annum. [*E.g.*: (£14,310 m. — 600 — 1,000) $\times \frac{3\frac{1}{2}}{5} \times \frac{160}{100} + 475 \times 8 = \text{£}18,035 \text{ m.}$] It is, however, consistent with other possible components also.

But I am much more concerned to begin afresh with a technique suitable for comparisons in future years, and that is why I have given most of my space to the new questions which have arisen in dealing with this problem. It will be for some other time and some other person to deal with the many features, including distribution and the “multiplier,” which I have left untouched.

APPENDIX I.

REFERENCES AND SOURCES.

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APPENDIX II.

THE EFFECT OF PUBLIC EXPENDITURE, AND OF PUBLIC
BORROWINGS, UPON NON-PUBLIC VALUES.

(1) If a man restricts consumption and saves £100, he may buy a piano, or put central heating in his house, or a bacon-cutting machine in his shop, or acquire a founder's share in a club. But instead of this, with his neighbours he may build a concert hall, or light the streets, or put up a public market and abattoir, or a municipal golf links or town hall. In the first group, the piano is a new wealth-entity, retaining its independent value because it is transportable to any market and not dependent for its preservation as wealth on having raised the value of the house in which it stands. But the concert hall depends, for keeping its own value, upon the same community owning it, and it has no transferable market value, but the amenity may add a little to the values of all the houses in the town, and, therefore, taking into the valuation its "object value" at cost, and also those added values or "influence" values, gives too high a total result. The central heating adds, *pro tanto*, to the value of the house in which it is put; it has no separate value whatever. Probably in the same way, all the houses are worth more to sell by reason of the street-lighting expenditure, and to count it separately is to duplicate values seriously. The bacon-cutting machine increases the selling value of the business, and it is probable that the public market for auction has some reflex influence on the businesses that can use it, possibly to the full extent. The private expenditure on a club-house retains its value as wealth almost entirely at the club, and influences the value of the residences very little. Similarly, the value of a town hall is unlikely to be fully reflected in the enhanced values of the general property, though a golf links may well be. One may consider that, if an estate is laid out with such amenities, the loss on the site value of land not utilized and the actual outlay may both be made good to the proprietors by the added property values. It will be seen, therefore, that property values and business values may reflect anything, from a very slight proportion up to the whole, of the communal investment cost, so that the addition of the actual cost of the asset itself tends to make gross aggregate values of private and public property, taken together, more than the absolute truth. The extent of their "influence values" depends upon time and custom. When communal expenditure represents not merely amenities, but positive necessities, which are much more cheaply supplied by common than by individual action, then the absence of such expenditure

(drains, good road approaches) may *subtract* far more from general property and business values in the aggregate than the cost of them. There should be the greatest hesitation, therefore, in adding in to the total separately the cost or even scrap values of old-time and thoroughly assimilated communal necessities. The cost of a beautiful monument, or a finer town hall, is probably never reflected in other general values. But it is a lasting object of civil pride and pleasure and as much entitled to count in national wealth as a statuette in your hall. An object of art does not forfeit its right to count in the total merely because it is in public ownership instead of private.

(2) Let us now introduce the factor of borrowed money. The individual, instead of saving for himself, gets a loan from a distant relative. This makes no difference whatever to the object valued, or to its influence on other correlated values. Nor does it introduce any other items into the account. For the valuation is an objective one, and this loan really divides the ownership of the valuation between two people. Debts and loans as such are not separately valued. But if the money was borrowed from an uncle in Australia, then a British asset has come into existence without any British saving, and an item has to be added to the deduction for capital in Britain owned abroad, thus in effect cancelling the specific addition of the object value but not cancelling the influence values.

But if the town borrows money, the public loan created will figure in the assets of the individual leaders, in addition to any object value and any influence values, but under our method it should be deducted from the gross total as a communal debt, and thus give the same result as the above. When the individual borrower saves and pays his British creditor, no figures whatever in the valuation are changed unless the creditor creates a new asset with the repayment. Then the gross total rises. If he repays his Australian relative, no valuation of assets changes, but the gross total alters because of the reduced deduction. When the public borrower pays off, the gross total remains *exactly the same*, for some new asset comes in, and the loan holding disappears, but the net total rises because public debt is reduced.

(3) The situation in (2) is modified slightly where repayment is made gradually over a period of years because the existence of the liability means compulsory saving through taxes and rates, which may, by psychology, depress "influence values" more than the influence of the object or asset raises them. In the case of very wise and tangible communal expenditure this is unlikely. Moreover, the additions to "influence values" represent a capitalization of effects for, say, eighteen or twenty years, whereas the liability to

repayment, which is a subtraction from "influence values," is spread over perhaps forty.

But past expenditure on war may have hardly any plus "influence value" (that kind of security being different from police or legal security), and there is nothing objective in the assets. There is the loan asset (being the value of certain income in the hands of individuals, or forming part of profits), and this swells the gross total, but it is cancelled by the deduction in getting at the net. The whole debt, however, does not necessarily depress influence values by the full amount, for it might be paid annually wholly out of wages through a consumption tax.

(1) The conclusion is that our method of dealing with communal expenditure tends to swell the gross totals unduly by an unknown amount, and our treatment of communal debt tends to reduce the relative net total unduly, but whether one influence completely offsets the other so that the *absolute net* is unduly high or low is quite indeterminate. But an absolute determination is not of great moment for most purposes. With a constant method, comparability is in no way affected by these doubtful points in method.