THE

GROWTH OF CAPITAL.

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BY

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LONDON:

GEORGE BELL AND SONS, YORK STREET,

COVENT GARDEN.

1889.

London:

Printed by Cousins and Co.,

6, Helmet Court, (338) Strand, W.C.

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NOTE.—The following pages were written for the most part in 1887, or early in 1888, and should be read as speaking from those dates. The completion of the book has been prevented till now by a pressure of official work, leaving but scanty leisure. The delay, however, makes comparatively little difference in what is spoken of as the present time, as there was no great change in the Income Tax Returns for a few years after 1885, although a considerable change seems probable in the present year, and next year.

December, 1889.

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CHAPTER I.

INTRODUCTORY

In the present essay I propose to resume and continue the notes on accumulations of capital in the United Kingdom, contained in a paper which I read to the Statistical Society in January, 1878, and since reprinted in the first series of my "Essays in Finance."* An additional period of ten years can now be dealt with, and the later compared with the earlier results.

In entering on the task I desire to recall attention to the special object in view. This is to discuss the

* See "Essays in Finance," first series, fourth edition. London: Geo. Bell and Sons. 1886.

accumulations of capital or growth of capital in a given period. For various reasons economists desire to know the rate of accumulation in a country—to compare the rate of taxation, for instance, with the gross and with the taxable income, to ascertain in what forms mainly the wealth of the country is growing, to compare the growth of capital itself with the growth of population, and so on. It is recognised, however, that only approximate results are obtainable. Imagination shrinks from the task of framing a catalogue or inventory of a nation's property as a valuator would make it: the idea of a valuation of the whole property of a country, as if a country could really be valued as a going concern, is itself a violent hypothesis; yet only from such inventories from time to time could the growth of wealth in the same country between two different dates be ascertained, while such growth being expressed in money might itself require correction if for any reason it did not happen to correspond with the growth in things. In the absence of such complete inventories however, it is thought that an approximation can be made to the results aimed at by valuing the leading items of national property in some definite way, and that this approximation may be tolerably useful as a basis for comparing the growth between two different periods, and for comparing one country with another, although the incompleteness of each inventory itself may be fully recognised. According to well-known statistical experience, the comparison of the growth or increment may be reasonably successful if the same method is followed on each occasion in working out the data for the comparison, although these data themselves may be unavoidably incomplete.

I must insist on this point all the more, because, since my former paper was written, attention has, in fact, been withdrawn from the special object in view, and it has been thought, apparently, that such estimates of property can be used for miscellaneous purposes in a way which I believe most dangerous, and that they can be made with a degree of accuracy which I believe to be impossible. Country has been compared with country, and period with period, in the most reckless fashion, without any attention to the comparability of the data. Such figures have even been used officially for the purpose of discussing the relative incidence of taxation on different kinds of property, real and personal being the kinds distinguished. I desire to record an emphatic protest against the employment of a method, which appears good enough for a special purpose in the absence of anything better, for purposes of a totally different kind, where a different degree of accuracy, which the figures are not susceptible of, may be necessary. Whether estimates of property, and the different kinds of it, can be made for such a purpose as discussing the incidence of taxation, or the like practical objects, is a point at least on which I reserve my own opinion. At any rate, those who make such estimates are bound *in limine* to justify their method, and to prove that the necessary degree of accuracy for the purpose they have in view is obtainable. For any such purpose as that now in hand, comparatively rough estimates are all that are required, and comparatively rough estimates are all that it is proposed to make.

An explanation at the outset as to the method followed may also be allowed. The object being to ascertain the accumulations of capital, and not primarily the amount of capital itself at a given time, it is an obvious suggestion that the problem may be attacked directly. Why not, it is said, reckon up the savings annually as they are made in the different forms in which they are made? This point was glanced at in my former paper, and reasons were given for the method actually followed; but this question of method is of some importance, and, perhaps, demands somewhat fuller illustration.

The objection to the method of merely recording investments as they are made, instead of valuing the whole property of the country at different dates, is first of all, its incompleteness. It is difficult, if not impossible, if we follow it, to take any account of the regular annual investment by individuals in their own business or properties, which must always be the most important form of saving—far more important in amount than the visible public investments. Next, even if it could be complete, this method makes no allowance for bad investment, for the waste of capital which is possible, (the investment so-called having been merely a form of throwing money into the sea), and it makes no allowance for the depreciation or loss of capital in old investments which have become obsolete or useless. By valuing property at different times as it stands, any inclusion of capital which has been merely wasted, or which has depreciated, is avoided. At each date only effective capital is reckoned. No doubt in many cases the valuation may represent a greater sum than has actually been invested, even when allowance is made for changes in prices; but the element of judiciousness in investments is as much to be allowed for as any other in a question of the amount of property in a country, and this is really a reason for the method and not against it. For these two reasons mainly, then, the method of valuing property at different times is to be preferred to the method of counting up investments as they are made. It is the more complete method of the two, including all kinds of private as well as public investment, and it allows, as the other cannot do, for loss and depreciation of old investments. There is a third reason in its favour. The figures when obtained by it can be compared with those obtained from the annual records of investments, and this comparison is useful in many problems, of which the amount of free savings coming on the general investment markets —*i.e.*, the Stock Exchange—and the proportion that amount bears to the whole savings of a country is one.

Of course, however, the exact meaning attached to the word accumulation must always be kept in mind by those who engage in the discussion. No method can be quite perfect. If we record merely investments as they are made, without considering whether they are judicious or not, and disregarding altogether the loss and depreciation of old investments, we get a fact which may be useful in some discussions, though not in others; and may call it, if we so please, the annual accumulation of capital. If we wish, however, to compare effective capital or property at one time with effective capital or property at another, we must proceed by the method of periodic stocktaking and valuation, and call the difference between the valuations at different times allowing for changes of prices, the accumulation of capital. The amounts to be dealt with in either case might not in some cases differ greatly from each other, but the different senses in which the words may be used, and the possibility of differences in the amounts of the accumulations as differently defined and ascertained, should, of course, be kept in mind.

There is yet another preliminary point. The method of estimating the property in the country at different times, which was followed in my former paper, it will be remembered, was to take the income returned for assessment to the Income Tax, capitalise the different portions of that income derived from capital—land, houses, and so on,—at so many years' purchase, and then make an estimate for other property in the country where the income was not got within the sweep of the Income Tax net. A similar method, it may be repeated in passing, as mentioned in the former paper, was first employed by Mr. Newmarch in the *Economist* in 1873. Mr. Newmarch by various calculations had arrived at the opinion that to obtain an idea of the annual accumulation in the country the amount of the Income Tax assessments might be multiplied by 20, and the difference between the totals at different dates would represent the accumulation. It was with some pleasure I noticed afterwards that Mr. Newmarch in the last paper he read to the Statistical Society adopted the more detailed plan of my former paper and practically accepted the figures, substituting them for those he had formerly used. In such a method, then, to come to the point I wish now to make, a great deal turns upon the number of years' purchase assigned to each description of income, and the question arises, when valuations at different dates are compared, or when the valuations of different countries are compared, how far is it expedient or necessary to vary the number of years' purchase as regards particular descriptions of property? In my former essay this difficulty was evaded. Dealing with one country only, the question of assigning a different number of years' purchase because of a comparison with other countries, or between different parts of the same country, did not arise; while I assumed that as the tendency had rather been in the interval compared, for all classes of income to be valued, as time went on, at a greater number of years' purchase, the rate of interest falling in the interval, the effect of ignoring this element would be for the figures stating the accumulation of capital to err rather by defect than by excess, which it was desirable to avoid. Now, however, the question of the number of years' purchase may require discussion. Since 1875 the capital value of many sorts of income, the number of years' purchase for which it will sell, has undoubtedly risen. As regards other kinds of income, however, such as the rent of land, the number of years' purchase at which the same nominal rental will pass in the market, has undoubtedly diminished. The question seems, therefore, not quite so simple as it was. On what basis should changes of the kind be dealt with theoretically if the general totals are likely to be seriously affected? It is proposed also, as will be seen, to compare different parts of the United Kingdom with each other as well as to make more extended comparisons with foreign countries. Here the element of the number of years' purchase must be dealt with explicitly. In some references a few years ago which I made to the capital of Ireland I assumed that landed property in that country ought to be valued at a smaller number of years' purchase of the rental than landed property in the rest of the United Kingdom, and I found to my astonishment that some critics assumed the contrary. Because in capitalising the lands of the United Kingdom I had assumed so many years' purchase *on the average*, therefore it was to be assumed, I was told, when one part of the kingdom was put against another, that the valuation of each description of property in each part should be at the same number of years' purchase! Such a procedure, in my opinion, would be most absurd. But whatever may be the right conclusion, the subject at any rate, owing to the different circumstances with which I have now to deal, as compared with what was the case formerly, and owing also to the wider scope of the paper, will require the most careful attention.

Another point of some difficulty, which was glided over in my former paper, though not altogether *sub silentio*, has also become too serious to be passed over now in a similar manner. This is the difficulty caused by changes of prices, and—to come to the period now specially under review, viz., the period 1875-85—the difficulty caused by the fall of prices in that interval. The valuations being of property, and the money value of all kinds of property depending on the prices of commodities directly or indirectly, anything which changes the prices must change the valuation. Changes of prices between two different dates, where they are at all serious, have accordingly to be allowed for in estimating the growth of capital by the difference in the two valuations; and the practical difficulty in handling the figures, it will be seen, is somewhat formidable. The point will be dealt with in its order when it arises, but it has to be mentioned at the outset to give all interested warning of a discussion which must take up a great deal of space. It is a purely unavoidable complication of our task.

CHAPTER II.

THE VALUATION OF 1885.

The first step to be taken, following the method of the former paper, is to look at the valuation of the nation's property at the present time.

For this purpose the accompanying Table (A), (see p. 11), has been drawn up in a form precisely similar to that of a similar table in 1875. The classifications of the items of the nation's property follows closely as far as possible that of the Income Tax returns, and additions are then made for property which is not accounted for as connected with any income dealt with by the Income Tax. The Table of 1875, it may be mentioned, is followed so closely that the list of items is word for word the same.

The table speaks very much for itself, but a few observations may be made before we pass to the proper subject of this essay—viz., the recent accumulations of capital.

I have first of all, then, to draw attention to the fact that it has been thought necessary in one or two cases to vary the number of years' purchase

[Continued on p. 12.]

TABLE A.

Amount of Income in Income-tax Returns, derived from Capital, Number of Years' Purchase at which the same may be Capitalised, and Approximate Amount of Capital; together with Estimate of remaining Income and Capital of the Country.

[000's omitted in amount columns.]

—	Income.	Years' Purchase.	Capital.	*Years' Purchase & Capital at Years' P'rchase Employed for 1875, where a Change has now been made.*	
Under Schedule A.	£		£		£
Lands	65,039,	26	1,691,313,*	*30*	*1,951,170*
Houses	128,459,	15	1,926,885,	...	...
Other profits	877,	30	26,310,	...	...
Schedule B. (Farmers profits)	65,233,	8	521,864,	*10*	*652,330*
Schedule C. (Public funds less home funds)...	21,096,	25	527,400,	...	...
Under Schedule D.					
Quarries	933,	4	3,732,	...	...
Mines	7,603,	4	30,412,	...	...
Ironworks	2,265,	4	9,060,	...	...
Gasworks	5,026,	25	125,650,	*20*	*100,520*
Waterworks	3,260,	20	65,200,	...	...
Canals, &c.	3,546,	20	70,920,	...	...
Fishings	618,	20	12,360,	...	...
Market tolls, &c.	590,	20	11,800,	...	...
Other public companies	34,789,	20	695,780,	*15*	*521,835*
Foreign and Colonial securities, &c.	9,859,	20	197,180,	*15*	*147,885*
Railways in United Kingdom...	33,270,	28	931,560,	*25*	*831,750*
„ out of United Kingdom	3,808,	20	76,160,	...	...
Interest paid out of rates, &c. ...	5,041,	25	126,025,	...	...
Other profits	1,435,	20	28,700,	...	...
Trades and professions—one-fifth of total income of £180,000,000	36,096,	15	541,440,	...	...
Total under Income-tax ...	428,813,	...	7,619,751,	...	*7,661,894*
Trades and professions omitted, 20 per cent. of amount assessed, or £36,000,000, of which one-fifth is ...	7,219,	15	108,285,	...	...
	960,†	15	14,400,	...	...
Income of non-Income-tax paying classes derived from capital	67,000,	5	335,000,	...	...
Foreign investments, not in Schedules C and D...	50,000,	10	500,000,	...	...
Moveble property not yielding income, *e.g.*, furniture of houses, &c., works of art, &c.	...	...	960,000,	...	...
Government and local property, say	...	...	500,000,	...	...
	554,022,	...	10,037,436,	...	*10,079,579*

* This is the result of capitalising lands in Ireland at 15 years' purchase, and in England and Scotland at 28 years' purchase. The average for the United Kingdom is an infinitesimal fraction over 26 years' purchase. † Estimate of income escaping assessment by raising of limit of exemption in 1876.

from that which was employed in the former paper for 1875, and that where this is done it is noted in supplemental columns what the figures would have been if the number of years' purchase formerly used had been retained. The general effect, it will be seen, is that while there are alterations in the relative amounts of particular items of capital *inter se*, the final totals arrived at are not materially different, in consequence of the changes made in the number of years' purchase, from what they would have been if no such changes had been made. The total valuation now arrived at is 10,037 millions, and if no change had been made in any case in the number of years' purchase the total would have been 10,079 millions.

The next remark to be made is on the magnitude of the sum total arrived at. The round figure of 10,000 millions is about $13\frac{1}{2}$ times the amount of the National Debt, and gives a sum of about £270 for every person in the United Kingdom, equal, at an average of five persons per family, to about £1,350 per family. If the valuation is at all moderate, the figure shows how much on the average each family in the United Kingdom possesses.

Of course, there are "averages" and "averages." An average may be made up of items where the preponderant numbers individually nearly correspond with it, or it may be made up of items where the preponderant numbers are greatly under it, a minority throwing it up. There is no doubt that, as regards the distribution of wealth in the United Kingdom the average is made up most unevenly. For convenience' sake the figures are reduced to so much per head or per family, but the actual distribution is a different matter.

Coming to the different items, the *first* to notice is the valuation of lands constituting about one-sixth of the total valuation. The income of £65,039,000 capitalised at 26 years' purchase shows a capital of £1,691,000,000.

The question will perhaps be raised whether 26 years' purchase, looking at the uncertainty of rentals, and the unsaleability of land on the basis of actual rentals, is not too high, although it is a great reduction upon the number of 30 years which was employed with general approval in my former paper. It is a great point, however, in such investigations to beware of panic figures, and of extreme quotations characteristic of a transitional and uncertain period. It is too soon yet to tell at what rent land in the United Kingdom will settle after the revolutionary circumstances of the last ten years, the adjustments required by the new circumstances being still in progress. We may be sure, however, looking at the low rate of interest for money, that the number of years' purchase, when a settlement is made, will in no case be so low as 26, while there is much land at present, which, for residential and other reasons, has not participated in the extreme fall of values of which we have heard so much. The figure of 26 years, therefore, is suggested as a safe mean in the present exceptional and transitional circumstances, and in the present uncertainty regarding the income on which the valuation is based.

It may be added also that, in fixing the number of 26 years, special regard is had to the peculiar circumstances of Ireland, where it has not been thought safe to assume a higher average than 15 years on the nominal Income Tax assessment of about

£10,000,000, which must be largely nominal only. The average assumed for England and Scotland is 28 years, by which a large allowance is made for residential and other land which has not yet participated in the extreme fall to which much land has been subject.

To prevent misconstruction, moreover, I have to remind those interested that the valuation is made as for the year ended 31st March, 1885, when the extreme depreciation of agricultural produce lately witnessed had not yet taken place.

2. The second item to be noticed is that of "Houses." The total income here is over 128 millions, and at 15 years' purchase the capital is 1,927 thousand millions—nearly one-fifth of the total valuation. "Houses" thus constitute the most important item in the valuation, being more important than lands which at the time of my former paper had still the undoubted pre-eminence, being nearly a fourth of the total.

The value of "Houses" alone, per head of the population of the United Kingdom is about £54, equal to £270 per family, at five persons per family.

To prevent misconstruction, it should be understood that the item of "Houses" in Schedule A in the Income Tax Returns, includes not merely dwelling houses, as might at first be supposed, but messuages and tenements generally, that is factories, workshops, warehouses, &c., these appearing to constitute about a fifth part of the total, according to the returns of Inhabited House Duty; and on the other hand, it does not include "Farm Houses" which are comprised with the item of lands. Deducting on the one-side, however, messuages which are not dwelling houses, and adding on the other side the separate value of farm houses, if it could be separated, the total housing of the people of the United Kingdom would not probably be far short of the figures above stated.

3. The third item I have to remark on is that of Schedule B. (Farmers' Profits), where the income, £65,233,000, is substantially the same as that of lands in Schedule A. This income, at 8 years' purchase, the figure assumed, brings out a capital of £522,000,000.

In this case the figure of 8 years is substituted for that of 10 years which was employed for 1875, and in making the substitution I have been influenced by the uncertainty of the income, and the exceptional and transitional circumstances, which appeared to necessitate a similar substitution as regards the capital value of lands in Schedule A. In normal circumstances I should consider 10 years' purchase the safer number to use on the basis of rental, so as to obtain a total of capital corresponding to Schedule B.

On the reading of my former paper, Major Craigie expressed the opinion that 10 years' purchase was too high, and he suggested a lower figure, which would have amounted to about 7 years' purchase of the rental of that time. Now he suggests, as I understand, a figure which would amount to about 5 years' purchase of the rental last returned.

The point is of very small importance for the special object of this paper. The difference in the number of years' purchase assigned hardly makes any appreciable difference in the accumulation of capital in the interval. The total difference in income under Schedule B, between 1875 and 1885, is about £1,500,000 only, and at 10 years' purchase this would represent a diminution of £15,000,000 in capital, at 7 years' a diminution of £10,500,000—figures quite insignificant in comparison with the immense accumulations here in question, while the difference between them is only £3,500,000—a still smaller figure in the comparison. Even the total farming capital, whether we take it at 300, 500, or 700 millions, is comparatively a small item in a valuation of 10,000 millions. There is a good rule about "de minimis," which is as applicable in statistics as in other matters, or even more applicable. It would be very foolish for those of us who are not agriculturists to waste time, in a question like this, on discussions about agricultural capital.

As the point has been raised, however, I have thought it interesting to look into the matter a little, and have a few observations to make, a small fraction of what I could write, if necessary; but I must refrain from introducing matter not germane to the main topic. What seems to have misled Major Craigie, as I believe, is a misconception on two points. He does not allow, first of all, for the necessity of dealing with agricultural capital, in a question like the present, in such a way that all the capital needed for the occupation, whoever owns it, is comprised. This is the general method used with reference to railway and other income in the Income Tax Schedules. A railway is not looked at from the point of view of the ordinary shareholder who really runs it, practically borrowing from the preference share and debenture holders to enable him to do so, but the whole value of the undertaking and its equipment is included. The same with gas works and other business, and with trades and professions. If this had not been done, then it would have been necessary to make a special item of that floating capital which bankers and other capitalists handle and lend in various ways to the active agents in industrial enterprise. Dealing with agricultural capital, then, in the same way a little reflection will show that it must include three main items :—(1) The value of one year's crops, or thereabouts ; (2) the value of the live-stock ; and (3) the value of the farming machinery and tools. At one period of the year, viz., harvest time, there must be practically a year's crops on the field or in stock, if not more ; the live-stock and equipment are always there, and *somebody owns them.* On this basis, however, in 1875, a much larger figure than Major Craigie's £476 millions must have been arrived at. Sir James Caird, not long after, in his book on the landed interest, valued the annual crops in the United Kingdom at 260 millions, and the live-stock at the same amount—total 520 millions ; while the farm equipment in machinery and tools could not then be put at less than about £1 per acre, making another 50 millions*—total 570 millions for the cultivated area alone. In such a matter, of course, being an outsider, I can only follow agricultural authority as regards the data, and the data undoubtedly show that Major Craigie's former estimate was too low for such a purpose as that of the present valuations. Besides all this something should be allowed for the tenants' unexhausted improvements, and any beneficial interest he may have through his rent not being a rack-rent.

The other point where Major Craigie appears to

* See "The Book of the Farm," vol. ii., pp. 413-5, edition 1871.

have misconceived the problem we must deal with here, is in not attending sufficiently to the nature of Schedule B, which is called for brevity's sake the "Farmer's Profits" Schedule, but which is strictly and technically the occupation of land. Even if Major Craigie was right, therefore, in his estimate of 476 millions for farmers' capital, he had still to consider what other occupation of land there might be under Schedule B. There are 30,000,000 acres here to be dealt with, no doubt for the most part mountain and waste, but still worth something, and possessing occupation capital. I need only mention one item—viz., woods and plantations—to show what a huge hiatus there may be here. Of these there are nearly 3,000,000 acres in the United Kingdom, and one has only to read the recent reports and evidence of the Select Committees of the House of Commons on Forestry to perceive that in spite of the fall in timber, as in other things, compared with former times, the woods and plantations have a considerable annual value and a still more considerable capital value to correspond, which would not, from the mode of valuation, be comprised in the income and capital under lands in Schedule A. This capital I should be disposed to estimate even now at something like 60 or 70 millions sterling, while in 1875, with much higher prices then prevailing, it was probably not less than 100 millions sterling, making with the capital of the cultivated area above mentioned a total of 670 millions, which was just about the figure in my former paper. It may be urged that timber goes with the land, and is included in the valuation of the land, but this is not so according to the method of the Income Tax returns. The real income from woods and plantations is not included in Schedule A, but only an assumed agricultural or prairie value. In a stricter account other items would have to be included, so that even if the 100 millions for woods and forests only is a little excessive the aggregate of 670 millions would not be far out. The bulk of the 670 millions is in any case sufficiently accounted for, and there are not materials, I fear, for more exact valuation. In this way it is easy to see that the criticisms of Major Craigie have been based partly on misconceptions of the problem. His figures were altogether too low as an estimate of capital under Schedule B, partly from his narrow construction of the term capital itself, and partly from his ignoring the large capital under Schedule B, which was capital of the occupation of land certainly, but not farmers' capital at all.

The point, as I have explained, is of small importance for the present paper; but perhaps the digression may be permitted for the sake of the explanations of method that have arisen upon it. In such a general valuation, it is, above all, important to leave out nothing of substantial consequence. It would not do to construe the word capital very narrowly in a given case, and thus leave out something which is not included anywhere else, so that it is left out altogether.

For the present time, I have not *data* on the same authority to refer to, but the recent valuations by Mr. Howard and Mr. Turnbull as to agricultural crops, and a portion of the property, show approximately that the present valuation of a little over £520,000,000 cannot be far off the mark. The crops sold off the farm are valued by Mr. Howard at a little over £200,000,000,* and while this is the value of the crops in the final form, so that it may be said part of it is the value of the live stock in another form, Mr. Howard's calculations show that the value of the crops before any part is converted into meat or dairy produce cannot be far short of this figure. Then the value of the live stock, exclusive of horses, is put by Mr. Turnbull at £150,000,000,* to which, if we add horses, farm implements, &c., at about £50,000,000 each, we have a further sum of £250,000,000—total £450,000,000, exclusive of the value of woods and other items under Schedule B, the importance of which has already been discussed. Without making exact calculations, it is easy to see that the sum of £520,000,000 for occupation capital under Schedule B—a wider term than agricultural capital, though the item is popularly spoken of as agricultural capital only—cannot be far off the mark, even if a stricter mode of valuation is followed than what is possible on the basis of Income Tax figures.

4. The next item to comment upon is that of "Public Funds less Home Funds," which shows an income of £21,096,000, and at 25 years' purchase a capital of £527,000,000.

I have some remarks to make on this item in connection with the general subject of foreign investments, and I propose afterwards to bring together with this view the various items in the Income Tax assessments which deal with such foreign income: but let me refer just for a moment here to the fact that the "Home Funds," included in Schedule C, are

* All these valuations also are at lower prices than were ruling in 1885.

here omitted in valuing the general property of the country. The reason I gave for this omission was stated as follows in my paper in 1878 :—

"As regards the second deduction, it will only be proper, I think, that in such a computation as this, we should not reckon the National Debt twice over,* and that would be the effect of our capitalising the whole of Schedule C. 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."

And I desire to call attention here very specially to the fact that this omission was, and is, made. In these figures, the capital represented by the National Debt is not represented as part of the property of the community, though, of course, to each individual holding a portion of the National Debt the holding is property.

What I have done is clear enough, and I believe that, on the whole, the reason assigned is a good one. But I should not censure very much any one who included the National Debt as a part of the capital of the community. The general reason for such a course would be that as the debt is a charge upon the resources 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 National Debt, lands, houses,

* The phrase, "twice over," is a slip. It would have been more accurate to say that the National Debt is not reckoned at all, which is the obvious meaning of the passage.

and every other description of property 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. Where the Debt is all held at home the point may be of importance in making comparisons with other countries, or in making comparisons between different dates in the same country where the amount of the Debt has changed much in the interval. I am bound to admit that in my view there is something in this reasoning, though it seems a strange thing at first sight to talk of debt as capital. Practically, however, for the reasons above given, I have thought it safer not to include the debt, and as regards the United Kingdom, at least, the debt not having much changed in recent years, the point is not of much importance in dealing with the question of the accumulations of capital in a given period.

5. The next observation I have to make on the table is with reference to the items of quarries, mines, and ironworks, which are all taken at four years' purchase, as they were in my former paper. It has been suggested since that a larger number of years' purchase ought to be taken, as the assessments comprise royalties as well as the ordinary profits of mines. Royalties, however, are only a mode of distributing profit, and experience has shown, I think, the wisdom of a low valuation. As will be seen afterwards, the income from mines and ironworks has dwindled enormously since 1875; it is only now a fraction of what it was Four years' purchase in 1875, as experience has proved, was almost too high.

It may be pointed out also that the result of capitalising mines and iron works, at four years' purchase, gives only a slightly higher result than the mode of dealing with ordinary business income (trades and professions) afterwards adopted. This plan is to assume that only a fifth of the income is derived from capital, and then to capitalise this fifth at fifteen years' purchase. Fifteen years' purchase of a fifth is equal to three years' purchase of the whole. Mines and ironworks at four years' purchase are thus still valued at more and not less than ordinary business income.

6. The next point to notice, is the number of years' purchase for Gas works, where 25 years have been substituted for 20, which was the years' purchase assigned in 1875. This may seem an unwarrantable change, in the face of the sensation caused by the electric light, and the consequent fear that gas would lose its value. In this and other cases of joint-stock property, however, I have only followed the market somewhat tardily. It may be doubted whether even now sufficient allowance has been made for the fall in the rate of interest. Assuming it to be right in principle to vary the number of years' purchase, as the market varies, this change in detail seems fully justified.

I pass over other minor items in the list—waterworks, canals, &c., fishings, market tolls, &c., where no alteration is made in the number of years' purchase compared with that formerly used; and

7. I come to three cases where such a change is made, viz., Other Public Companies, Foreign and Colonial Securities, &c., and Railways in the United Kingdom. In the two former cases, the number of years' purchase is raised from 15 to 20, and in the

latter from 25 to 28. It will be for those who take an interest in such matters to consider whether this is an adequate, or an insufficient, or an excessive allowance for the fall in the rate of interest in the interval. In the case of railways the change is equal to an average fall in the rate of yield to investors on railway securities from 4 to £3 11s. 6d. per cent.; and in the case of other public companies, &c., to an average fall as from £6 13s. 4d. to 5 per cent. The changes, however, correspond to the greater proportionate improvement of credit which seems to have taken place in what were formerly considered securities of inferior grade, though really not substantially much inferior. High-class securities have improved enormously, but as they have risen in price investors have naturally turned to lower-priced investments where there seemed still some chance of 5 or 6 per cent., and in many of these at any rate, including foreign securities of all but the first-class, and excluding the bogus class, there has been an immense improvement.

The result no doubt is, as we shall see when we come to make comparisons, to bring out a remarkable increase of capital in railways and public companies, without a fully corresponding increase of income; and what value is to be placed on an increase of capital thus arising, as well as on the corresponding decrease in the case of lands already adverted to, will be one of the main points for discussion.

8. The remaining items of property corresponding to income included in the Income Tax assessments call for little remark. It would have been justifiable, I think, to increase the number of years' purchase applied to railways out of the United Kingdom, as it

has been increased in the case of foreign securities, but I have been afraid of exaggerating. A larger number of years' purchase might also be assigned to the "Interest paid out of rates," but this has been avoided for the same reason. As to the method followed in dealing with Trades and Professions, I need only repeat what was said in my former paper. I have here followed Mr. Dudley Baxter's calculations —viz., to assume that one-fifth of the income is derived from capital, and then to capitalise at 15 years' purchase. This is especially a figure where no exactness is possible. Trades and professions include to some extent the salaries of clerks and other employés where there is no corresponding capital; but they are, no doubt, made up for the most part of really trading and professional incomes, where capital is indispensable to the income, but where the income as undoubtedly is mainly dependent on personal exertions. If a better plan can be suggested for dealing with this part of the Income Tax, I shall gladly follow it.

9. Coming last of all to the items of capital either arising from incomes below the Income Tax limit or being property of another kind, I have to notice, to begin with, the first two of these items—viz., trades and professions, which ought to have been assessed and are not, and incomes of trading and professional persons below the Income Tax limit, which are capitalised at five years' purchase. These are, of course, very rough estimates indeed, designed to prevent the complete omission of something which ought to have been dealt with somehow. Here, again, I have been guided by Mr. Dudley Baxter, who explains in his Essay on National Income his mode

of estimating the two kinds of income which lay intermediate between incomes comprised in the Income Tax assessments on the one side and working class incomes on the other. The only point I have to notice here is the special inclusion of a certain income which has fallen below the Income Tax limit since 1875 by the raising of the lower limit of the Income Tax since that date. On this head, however, I may refer simply to what is said in the table and the notes. The point could not be passed over.

10. The next item to notice is that of foreign investments not in Schedules C or D, where a large amount of income—viz., £50,000,000—is taken note of, and capitalised at 10 years' purchase. Wonder is expressed at so much foreign income escaping taxation, but, in spite of all that has been done since 1875 to get hold of such income for the revenue—and a great deal, I think, has been done—I must appeal to a few broad considerations to justify the figure put down, as I did in my former paper, to justify a similar figure.

The best way to look at the matter is to put together all the foreign income which the Income Tax authorities get hold of, and compare them with other known facts :—

	Thousands.
	£
Public Funds (Schedule C)	21,096
Foreign and Colonial Securities (Schedule D)	9,859
Railways out of United Kingdom (Schedule D)	3,808
	34,763
Foreign Investments not in Schedules C or D	50,000
	84,763

It is obvious that the £34,763,000 is too small, whatever may be thought of the proposed addition of £50,000,000 for the income "omitted." I have to submit, however, on this last head the table in the Appendix (Table I), showing from an analysis of Stock Exchange lists how probable it is that the income from foreign public securities alone coming to English people is enormously larger than the sum of £34,763,000 which the Income Tax authorities get hold of, while there is an immense investment besides through private channels and by mercantile houses with partners and establishments abroad. It should be explained, moreover, that a great deal of this income may escape assessment to the Income Tax in no improper way. The partners residing abroad of firms which are really English, but which are domiciled abroad, are perhaps under no obligation to return the income, though their wealth and income are English wealth and income, and much profit that may be made by such partners may be eventually brought home as capital and not as income, and so escape assessment.

11. The next item is that of movable property not yielding income, which is assumed to amount to half the valuation of houses. This does not pretend to be much more than a guess, though it was not arrived at without some data. It has since been very generally accepted. In any case it is a rough figure, and is affected, of course, by the circumstance that the item "houses" in the Income Tax assessments does not correspond exactly with dwelling houses.

12. The last item of all, is that of government and local property. Here again the figure is somewhat rough. But army property, navy property, and

public buildings of all kinds are government property, which must come to something, while local property of every kind cannot now be less than three hundred millions. It has increased on a moderate calculation from the amount of local loans, and the amount annually repaid, by about 100 millions at least, in the ten years specially under review. The figure here inserted certainly cannot err much by excess.

Large as the figures are, therefore, the estimate of 10,000 millions as the property of the United Kingdom valued as a going concern does not seem unreasonable. Of this sum again, nearly 8,500 millions must be reckoned as income yielding, the corresponding income being about 552 millions. The figures are truly bewildering, but it is quite certain that some such figures are about the mark. Valued as a going concern at the current prices of the individual items of the property, the business carried on by the community within the British Isles, with the property of every kind they possess, would exchange for all this money.

CHAPTER III.

THE RECENT PROGRESS.

Our special business, however, is not with the valuation of the national estate at the present time, but with the accumulation of capital in recent years. For that purpose, instead of the 30 years' comparison which was all that was possible when I wrote ten years ago, it is now possible to make a comparison in the same detail for two ten-yearly periods.

I shall begin, however, by comparing 1885 with 1875, which can be compared in the minutest detail, and then go on to compare 1865-75 with 1875-85, which cannot be done in quite so much detail. For this purpose I have copied in full the valuation for 1875, which appeared in my former paper, and I have also prepared a comparative table showing, with less detail, the increase in 1875 over 1865, and the increase in 1885 over 1875. (See valuation of 1875, p. 30, and Comparative Table, 1865-75-85, pp. 43.) Comparing 1885 with 1875 only, as may be done by looking at the accompanying table (p. 30), and referring

[Continued on p. 31.]

TABLE B.

Amount of Income in Income Tax Returns, derived from Capital; Number of Years' Purchase at which the same may be Capitalised, and Approximate amount of Capital; together with Estimate of remaining Income and Capital in the Country. [Year 1875—Extracted from Paper on Recent Accumulations of Capital in the United Kingdom. Read before Statistical Society, January, 1878. "See Essays in Finance," 1st Series, p. 176.]

[000's omitted in amount columns.]

	Income.	Years' P'rchase	Capital.
Under Schedule A—	£		£
Lands	66.911,	30	2,007,330.
Houses	94,638,	15	1,419,570.
Other Profits	883,	30	26,490,
Schedule B— (Farmers' profits)	66,752,	10	667,520,
Schedule C— (Public funds less home funds)	20,767,	25	519,175,
Under Schedule D—			
Quarries	916,	4	3,664.
Mines	14,108,	4	56,432,
Ironworks	7,261,	4	29,044,
Gasworks	2,630,	20	52,600,
Waterworks	1,869,	20	37,380,
Canals, &c.	1,007,	20	20,140,
Fishings	207,	20	4,140,
Market Tolls, &c.	842,	20	16,840.
Other public companies	25,647,	15	384,705,
Foreign and colonial securities, &c.	6,836,	15	102 540,
Railways in United Kingdom	26.215,	25	655,375,
,, out of United Kingdom	1,330,	20	26,600,
Interest paid out of rates, &c.	2,647,	25	66,175,
Other profits	1,120,	20	22,400,
Trades and professions—one-fifth of total income of £175,000,000	35,000,	15	525,000,
Total under Income Tax	377,586,	...	6,643,120,
Trades and professions omitted, 20 per cent. of amount assessed, or £35,000,000, of which one-fifth is	7,000,	15	105,000,
Income of non-income-tax paying classes derived from capital	60,000,	5	300,000,
Foreign investments not in Schedules C or D	40,000,	10	400,000,
Movable property not yielding income, *e.g.*, furniture of houses, &c., works of art, &c.	...	...	700,000,
Government and local property, say	...	...	400,000,
	484,586,	...	8,548,120,

back to the table for 1885 (on p. 11), the general result is that the capital of the United Kingdom, which appeared in 1875 to be about 8,500 millions, is now estimated by an exactly similar process at 10,037 millions in 1885. The increase between the two dates is 1,489 millions, or almost exactly $17\frac{1}{2}$ per cent. The increase is not so great as in the previous decade, for if the increase had continued at the former rate of 40 per cent. in ten years, the total estimated capital in 1885, instead of being over 10,000 millions, would have been just under 12,000 millions, and the increase would have amounted to 3,420 millions instead of being 1,489 millions only. Still the figures are very large, and for the present we may postpone any discussion of the relative rate of growth in 1865-75 and the more recent period.

The more prominent details, apart from the special questions to be presently discussed, do not seem to require much comment. I shall make a few observations on the principal items in their order.

1. No one will be surprised at the reduction shown in the item of lands. The income assessed has fallen from £66,911,000 to £65,039,000, and as the number of years' purchase assigned is also less, there is a corresponding reduction of capital amounting to £316,000,000 on a total of £2,007,000,000, or over 15 per cent.

If there is any surprise at all it will be that the reduction is not much greater. The fall in the value of agricultural produce, and the consequent fall in rents, have been notorious. The wonder will be that the income from lands in these returns, and consequently the capitalised value, according to the method of estimating here followed, have not fallen more.

In explanation, I have to suggest the following reasons why the reduction of income and capital here shown should not correspond to the popular impression of what has been going on :—

(a.) The valuation follows somewhat slowly the change in the property itself, and the maximum valuation of lands, before the fall of prices began to have effect, was not reached until after 1875, the fall of prices not beginning to tell until about 1881. Comparing the maximum reached after 1875, viz., £69,549,000 in 1880, with the figure of £65,039,000 for 1885, the apparent reduction of income is not merely 2·8 per cent., but nearly 7 per cent. And the apparent reduction of capital value, owing to the diminution in the number of years' purchase, would, of course, be greater still. Even this reduction is still small compared with the popular impression; but, allowing that the reduction still lags behind the actual change in the property, as the valuation of 1875 lagged behind the enhancement of value still going on then, we may expect that later returns will show a greater change.

(b.) To some extent the figures of the Income Tax Valuation as regards lands have been stereotyped. In past times, it may be allowed, they did not show the real variation in money income that took place from period to period; and as they did not show the increase, neither have they shown the decrease. This is especially the case as regards Irish land, where Griffith's valuation seems to have been followed year after year, although it was much under the rents of 1875, and is not now nearly so much under them.

A defect of this kind in the Income Tax Valuations is, of course, a drawback to the use of them in showing the accumulations of capital in different periods, and if it were general throughout the returns would make it hardly possible to use them at all; but there is no reason to believe the defect to be at all general.

(*c*.) A large amount of "lands" has practically a residential as distinguished from an agricultural value, and the capital value of such lands will not change as that of merely agricultural land changes.

(*d*.) The income from different sorts of agricultural land has diminished in very varying degrees, while the effect on landlords' rent has also been partially mitigated by the fact that tenant farmers, as a rule, in England have not been rackrented, that they have had virtually a beneficial interest in their holdings, and that the loss by agricultural depression has not consequently fallen so exclusively on landlords' rent as it would otherwise have done.

All these are reasons for the item of lands not showing as great a diminution in these returns as it might have been expected to do. The diminution of rent should not have so much effect as is commonly supposed, and the effect in any case is partly postponed. The result will be that when we come to deal with another period of ten years, the increase, if there is an increase, will not appear so great as it would otherwise do; and the decrease, if there is a decrease, will appear to be more than it will really be, reckoning from the present date—*i.e.*, 1884-85.

2. The next item to comment upon is houses, which show a very large increase—quite as great, nearly, though this is anticipating a little, as the increase between 1865 and 1875. The capital of houses is now much more than lands, being just

under £2,000 millions, and the increase in the decade has been £507 millions, or nearly 36 per cent. Houses, as already noticed, are now the main item in the whole valuation.

Part of the increase may be due to more stringent valuation, a remark which applies to all the heads of the Income Tax; but, on the whole, the progress in houses seems to correspond fairly well with progress in the country.

We should have expected, perhaps, as the result of the fall of prices, that the increase would not have been quite so great. It is to be observed that the greater part of the increase took place in the first five or six years of the decade, when almost all values were still swelling rapidly. In the last four or five years it has been at a slower rate.

3. The next important item is that of Schedule B—farmers' profits, as it is popularly called, though it includes, as already explained, a good deal more than farmers' profits. Here the decrease corresponds to that of the item "lands," the two valuations being, in fact, substantially the same, and being expressly, according to law, made upon rental in the absence of a formal claim by the farmer, to be assessed after the method of Schedule D, which is practically never made.

Here the change calls for little remark. The reduction of capital in the ten years is from £667,000,000 to £522,000,000, or between 20 and 25 per cent. It seems doubtful whether the diminution in agricultural capital has not been more. One hears of the tenant farmers having lost three rents, or about £200,000,000. I have to suggest, however, as is done regarding lands, that the years 1875 and 1885 do not correspond precisely to the maximum and minimum years which mark the whole change from better to worse in agriculture. Farther, the loss to the farmer is not the same thing for our present purpose as the loss of agricultural capital itself. The tenant farmer's loss may well have been borne in part out of current income, or out of other funds of his own, or at the expense of creditors. The things constituting the capital, the live-stock, &c., may have remained, and in fact, seem to have largely remained, and are only now valued at lower prices. In putting the present figures in the Table, therefore, I must not be understood as under-valuing the amount of the farmer's losses.

Of course, the loss is brought out very largely in the comparison by changing the number of years' purchase, but for this good reason has been shown.

4. The next item of Public Funds less Home Funds, Schedule C, calls for more mark. The change in the ten years is immaterial. The change to notice here is in connection with foreign investments generally, which will be dealt with later.

5. The next items I have to notice are mines and ironworks, which show a great reduction. The income in the case of mines falls in the ten years from £14,108,000 to £7,603,000, or very nearly 50 per cent.; and there is a proportionate reduction in the estimated capital from £56,432,000 to £30,412,000. In the case of ironworks the reduction in income is from £7,261,000 to £2,265,000, and in capital from £29,044,000 to £9,060,000; or a reduction of 69 per cent.

As compared with the general capital of the country the investments in mines and ironworks are not large, and the changes unimportant, but in themselves they are immense. A more fluctuating industry there could hardly be. There is no doubt of these industries having been specially inflated about 1875.

I have already dealt with the suggestion which has been made, since my former paper was written, that the number of years' purchase assigned to the income from mines and ironworks, viz., four years, is too low —that part of the income consists of royalties which are worth a greater number of years' purchase. I may now add that possibly there may be a reason for assigning a larger number of years' purchase in a period of comparatively low income, and a smaller number when the income has been inflated from any cause, but the amounts involved are too small to make the question worth while.

6. The next items are those of gasworks, waterworks, canals, &c., fishings and shootings, which are all of a minor character compared with the main items in the Income Tax assessments, but which all show very considerable increase in the ten years, apart from the change in the number of years purchase, viz., gasworks 91 per cent., waterworks, &c., 74½ per cent., canals, &c., 252 per cent., and fishings and shootings 198½ per cent. Part of the increase is no doubt due to transfers from other heads, but there must still be considerable real increase, corresponding to the increase in such an item as houses. I believe the *etcetera* in the case of canals, &c., where the increase is so remarkable, is specially important. It would be a mistake to suppose that canals in particular, which have been so long stationary or declining, have picked up between 1875 and 1885 to the remarkable extent stated.

7. Markets tolls, &c., show a considerable diminution in the ten years, owing, no doubt, to the gradual extinction in this country of all forms of *octroi*. In any case the item is unimportant.

8. The next item to comment upon is that of "other public companies," which shows a remarkable increase of 35·6 per cent. in the income and of 81 per cent. in the capital, the change in the income being from £25,647,000 to £34,789,000, and in the capital from £384,705,000 to £695,780,000. The change in the capital is, of course, largely due to the increased number of years' purchase, but taking the increase on the income only it is still immense. Part of it, we may believe, is due not only to the continuous creation of public companies for new enterprise, which is a process constantly going on, but to the conversion of private firms into limited companies, which has been a marked feature of Stock Exchange business in recent years, and which may help to account, therefore, for the slow increase in "Trades and Professions" to be presently noticed.

9. The next item is that of Railways in the United Kingdom, which show an increase in income in the ten years from £26,215,000 to £33,270,000, and in capital from £655 millions to £931 millions. A large part of the increase of capital is, of course, due to the increase in the number of years' purchase assigned; but even without this enhancement the change would have been very great, as the figures of capital at the present time would then have stood at 832 millions. Here the figures may be compared with the railway returns themselves, which give for, practically, the same dates, viz., the calendar years 1874 and 1884 an increase in income from £26,643,000

to £33,305,000, and in capital from £610 millions to £801 millions. The figures as to capital in the two statements do not correspond, an important difference being made by the change in the number of years' purchase employed in the calculation. Nothing more need be said, however, than what has already been said generally, or will be said later on. The magnitude of railway capital, in reference to capital generally, could not be shown without taking note of its selling value. In any case, it may be pointed out, the Railway Return itself does not contain figures of actual investment. The record of actual investment in railways would show even a smaller figure than that shown by the Railway Return of capital itself. The real investment of railway capital, whether profitable or not, is not the difference in nominal capital shown between 1874 and 1884, amounting to 191 millions, but probably not more than 170 millions, the actual new cash outlay in the interval.

10. The item of interest paid out of rates shows a large increase, though the amount in comparison with the figures here dealt with is, of course, not large. Possibly if this item were larger the question might arise whether it should not be dealt with in the same way as the interest on the National Debt; but the item as yet seems hardly large enough to make it worth while to raise the discussion.

11. The last important item in connection with the Income Tax assessments themselves is that of "Trades and Professions." Here the total income capitalised, according to the method and for the reasons stated in my former paper, is only a portion of the net income assessed, but the proportion maintained is the same, and as the result the increase shown in the income capitalised is from £35,000,000 to £36,096,000, and

in the capital at 15 years' purchase from £525,000,000 to £541,000,000; or 3·1 per cent.

This is a very small increase, but a partial explanation has already been suggested in connection with the item of Public Companies, viz., that private firms of late years have been converted in an increasing degree into public companies.

It may also be pointed out that this item has specially suffered between 1875 and 1885 by the change in the lower limit of the Income Tax, and that in all probability the income under this head but for this change would have been £960,000 more than is here estimated; this sum of £960,000, it will be observed, being specially taken account of in the lower and supplementary part of the above Table, which deals with income and capital not represented by any Income Tax assessment.

12. Apart from the observations already made, and the special remarks on foreign investments which I have reserved to the last, and which apply, strictly speaking, to all parts of the Table, the lower and supplementary part of the Table appears to call for little remark. The estimates of the income of non-income tax paying classes derived from capital, of movable property not yielding income, and of government and local property, are put in almost *pro formâ* and to round off the estimates, and not with any idea that any very exact figures can be stated. The increase of capital altogether under these heads is £513,000,000, out of a total increase of £1,489,000,000, and deducting about £50,000,000 for capital, which would have appeared in the upper part of the Table but for the change in the lower limit of the Income Tax, it is little over £450 millions, or little more than a fourth part of the total increase of capital.

So far as I have been able to do so, I have endeavoured to deal with these rough estimates in a safe manner, and so as not to exhibit too great an accumulation in a given period; but no one is more sensible than I am that a more exact valuation, if it were possible, might alter the figures somewhat, besides giving information which would be most useful and would enable us to discuss interesting points with minute accuracy, which must now be left undiscussed altogether. Whether, for instance, movable property not yielding income increases at a greater or less rate than other property would be a most interesting point. At present, by the method followed, equality in the rate of increase is assumed, and although this may not be material in a question of the accumulation of capital generally, it would, of course, be most interesting in its own place. I know of no method, however, upon existing data, by which statisticians could attack the problem. The limits of the information available by the method here followed must be distinctly recognised.

I come, then, to the question of foreign investments, which affects many items in the Tables. Putting all the items together, the comparison between 1875 and 1885 is as follows:—

	1875.	1885.	Increase.
	Mlns.	Mlns.	Mlns.
Public Funds, less House Funds (Schedule C)	20·7	21·1	0·4
Foreign and Colonial Securities (Schedule D)	6·8	9·8	3·0
Railways out of United Kingdom (Schedule D)	1·3	3·8	2·5
Foreign Investments not in C or D (estimated)	40·0	50·0	10·0
	68·8	84·7	15·9

It cannot be said upon these figures that the estimate of the increase of foreign investments between 1875 and 1885 is at all excessive. The total increase of income assumed is under 16 millions sterling, which would represent, at 20 years' purchase, more than the average, a capital of 320 millions only, or 32 millions per annum. Allowing for all the capital called in from abroad, of which we have heard so much, it must be admitted, I think, that the foreign investments between 1875 and 1885 were more than some 30 millions per annum. I have only to refer on this head to a table which was appended to my essay on the "Use of Import and Export Statistics," which was read to the Statistical Society in March, 1882*, and which I propose to continue in the journal of the Statistical Society, a summary being here given in the Appendix. (See Appendix II.) From this summary it appears that the actual new issues in the ten years 1876-1885 of Colonial Government Loans, Municipal Loans, Foreign Government Loans, and Railway Issues were as follows :—

	Millions. £
1876	25·6
1877	18·8
1878	25·9
1879	23·1
1880	29·9
1881	44·0
1882	45·2
1883	48·7
1884	48·9
1885	51·7
Total	361·8

* See "Essays in Finance," second series, second edition. London: Geo. Bell and Sons. The table here referred to is printed in the "Statistical Society's Journal" for June, 1882.

—a larger amount than the sum arrived at by capitalising the assumed addition to the income from foreign investments between 1875 and 1885. In addition there were issues of miscellaneous companies and mining companies to a large amount. Besides all this there is the private investment, which must be very large. Of course the period between 1875 and 1885 includes the period of the foreign loan collapses, but the table in the Appendix (Table I.), it will be observed, which compares with a similar table for 1875, is constructed in such a way as to allow for all such collapses. After all, the collapse of Turkish and Peruvian loans and a few minor issues were as nothing to the great business of the market, the collapse at a later date in American railway issues being substantially more serious. Making all allowances, then, the increase here reckoned for the ten years is by no means excessive.

So much for the comparison between 1875 and 1885. I have next to call attention to the accompanying Table (see Table on p. 43), which exhibits the comparative results above dealt with in a more condensed form, and places alongside, in addition, the comparative results for the ten years preceding for which it is impossible to give so many details. The comparison between the progress shown in 1865 and 1875, and the progress now shown, is instructive, both as regards the total amounts and the details.

Between 1865 and 1875 the increase in total capital was from 6,113 millions to 8,548 millions, an increase of 2,435 millions, or 40 per cent.; whereas now the increase is from 8,548 to 10,037 millions, or 1,489 millions and $17\frac{1}{2}$ per cent. only. Both in amount and percentage the increase in the second

[CONTINUED ON P. 44.]

TABLE C.

Approximate Amount of Capital or Property in United Kingdom in 1865, 1875, and 1885, compared.

—	1865.	1875.	1885.	Increase in 1865-75. Am'unt.	Increase in 1865-75. Per C'nt.	In. or Dec. in 1875-85. Am'unt.	In. or Dec. in 1875-85. Per Cent.
	Mlns. £	Mlns. £	Mlns. £	Mlns. £	%	Mlns. £	%
Lands	1,864	2,007	1,691	143	8	−316	− 15·7
Houses	1,031	1,420	1,927	389	38	507	35·7
Farmers' profits	620	668	522	48	8	− 146	− 21·9
Public funds less home funds	211	519	527	308	146	8	1·5
Mines	19	56	31	37	195	− 25	− 45
Ironworks	7	29	9	22	314	− 20	− 69
Railways	414	655	932	241	58	277	42
Canals	18	20	71	2	11	51	255
Gasworks	37	53	126	16	43	73	138
Quarries	2	4	4	2	100	...	...
Other profits	55	84	116	29	53	32	38
Other Income-tax income, principally trades and professions and public companies	660	1,128	1,664	468	71	536	47·5
	4,938	6,643	7,620	1,705	35	977	14·7
Trades and professions omitted	75	105	108	30	40	3	3
Income from capital of non-income-tax paying classes	200	300	319	100	50	49	16
Foreign investments not in Schedule C and D	100	400	500	300	300	100	25
Movable property not yielding income	500	700	960	200	40	260	37
Government and local property, say	300	400	500	100	33	100	25
	6,113	8,548	10,037	2,435	40	1,489	17·4

ten years is considerably less than in the first ten. Omitting the supplementary items which are not directly based on Income Tax assessments the difference is just as remarkable. The increase between 1865 and 1875 was from 4,938 millions to 6,643 millions, an increase of 1,705 millions, or 35 per cent.; between 1875 and 1885 it is from 6,643 to 7,620 millions, an increase of 977 millions, or about 15 per cent. A little difference would be made in the latter period by adding in about 50 millions of capital representing income transferred from the higher to the lower part of the Table in consequence of the change in the lower limit of the Income Tax, but the difference would not be very material. The rate of increase in the later period would still be less than half what it was in the earlier period.

Looking at the comparison in more detail, the first broad fact noticeable appears to be that, whereas between 1865 and 1875 every item of capital shows an increase—in some cases very little in proportion, but in others a great deal—yet between 1875 and 1885 there are, as already noticed, a good many items of decrease. Lands, Schedule B, and mines and ironworks are all cases of actual decrease—in some cases of very great decrease between 1875 and 1885,—although in each case in the previous period there was an increase, and that increase in the case of mines and ironworks was very large, amounting to 195 and 314 per cent. respectively. Next, it is to be noticed that the rate of increase generally between 1875 and 1885, where there is an increase, is much less, with one or two exceptions, than in the previous ten years, and where the increase is now at an equal or greater rate, it is owing, in part, to the increase in the number of years' purchase at which the income has been capitalised. The following comparison brings the facts on this head to a point:—

Increase per Cent. of certain Items of Capital in 1865-75 and 1875-85 compared.

	1865-75.	1875-85.
Houses	38	35·7
Public Funds, less House Funds	146	1·5
Railways, United Kingdom	58	42·0*
Canals, &c.	11	255
Gasworks	43	138·0*
"Other Profits"	53	38·0
Other Income Tax Income	71	47·5*
Trades and Professions omitted	40	3·0
Income of non-Income Tax paying Classes ...	50	16·0
Foreign Investments, &c.	300	25·0
Moveable Property not yielding Income ...	40	37·0
Government and Local Property	33	25·0

In all directions, therefore, there is a diminution in the rate of increase in the later as compared with the earlier period. The two exceptions are those of canals, &c., and gasworks, where the amounts are too small to be material, and where, in one case, at least—that of canals, &c.—the apparent increase is not improbably due to transfers, and in the other the increase is largely due to the increased number of years' purchase at which the income is capitalised. The broad fact that the change in the rate of increase in the two periods extends throughout almost all the items of the comparison, a decrease in some cases being substituted for an increase, and in others a less rate of increase shown, is not to be qualified in any way. The decrease shown in the general totals is made up of minor changes, all in the same direction.

* In these cases part of the enhancement of capital is due to the increase of the number of years' purchase at which the whole or part of the income is capitalised.

The only apparent exception to the general change is formed by "Houses," and in the corresponding item of capital in the supplementary part of the table, viz., moveable property not yielding income, where the estimate is based on the assumption that such property bears a certain proportion to the capital value of the houses. Here it will be seen the rate of increase in 1865-75 is fairly well maintained in 1875-85. The maintenance of the former rate, however, as regards these two large items, implies, of course, that the general reduction on other heads must be somewhat more than the average of the above totals.

As regards these two special items, again, the point already noticed, that in the last half of the last decade the rate of increase here has slackened greatly, would require serious consideration in forming any conclusions as to the present growth of property in the country as far as its money expression is concerned. There is nothing, indeed, to alter the general impression given by the figures that in the last decade, as compared with the previous decade, something must have happened to diminish the rate of accumulation of capital as expressed in money. The increase in the last decade is not inconsiderable, and if comparison were not made with a preceding decade of a different character would be accepted at once as completely satisfactory, but the comparison cannot but be made and the causes of the difference must be sought for.

The discussion of this comparison and their causes should be one of the most interesting topics of a paper like the present.

Before entering on it, however, let me notice very briefly the other general question which has been suggested as to varying the number of years' purchase in comparing different periods. In the above Table, contrary to the practice in 1875, I have in some cases taken a different number of years' purchase at the two dates compared. Formerly, however, one of my reasons for the contrary course was to avoid any error by way of excess in estimating the increase of capital between the two dates. It seems to be expedient now, in view of the apparent diminution in the rate of increase of capital, to avoid any error by way of defect by taking note of variations in the number of years' purchase, and this I have accordingly done.

Theoretically there would seem to be no good argument against altering the number of years' purchase from period to period according to market changes. Such a course would appear to be absolutely indispensable if changes in the relative amounts of property in different categories are to be taken note of. Possibly with little change in aggregate wealth between two dates there may be great changes in its distribution, through a community setting higher store by one species of it relatively to others at one time than at another. In the present case, too, it is notorious that as regards two large branches of property there have been great changes in the last decade in the common estimates of their value. On the one hand land sells for a smaller number of years' purchase of the actual rent than it did. On the other hand Stock Exchange securities of all descriptions, but especially the highest and the next higher classes, such as the public funds, colonial securities, and the like, as above explained, have been rising in value. There is another reason of a general kind for varying the number of years' purchase. There is reason to believe that in the last decade the rate of interest on capital has been steadily declining, and this means that the number of years' purchase for which old securities will exchange has increased. Capital has to be invested for a smaller and smaller return. But while this means that, as far as income is concerned, wages and salary receivers get a larger and larger proportion of the whole income of a community, yet accumulated or fixed capital, in relation to commodities or circulating capital, bears a higher value than before, and we do not take note of this change in capital, which is really a mode of accumulation, unless we take note of the change in the number of years' purchase.

Practically, however, I do not, as a rule, vary the number of years' purchase in comparing 1875 with 1885 any more than in comparing 1865 with 1875, when there was perhaps less reason for making a change. I have only made the change in one or two cases where there seemed an obvious necessity. As regards land, for instance, it would be pedantic not to have made a change in view of the fact that the nominal rent in the Income Tax returns has ceased to be the real rent, and that for the present at least the selling value of land is much less than it was. It is quite true that as yet the whole affair is in transition. Land is speculatively depreciated because of the uncertainty as to what the rent is to be reckoned at. When things are more settled it seems quite possible, and even probable, that land will participate in the general tendency of all income from property to pass for an increasing number of years' purchase. But the blow that has been dealt at land is too big to pass altogether unnoticed even in this transitionary period. As regards other securities, such as those of the Stock Exchange, again, the change in the direction of an enhancement of the years' purchase they command is so great that it would be pedantic not to recognise the relative transference of capital. What the community loses in one direction it gains in another. The increase of the exchangeable value of a security is an increase of its real power as capital.

I have further to call attention to what was noticed at the outset, that the aggregates are little changed by these changes in the number of years' purchase; the items only are changed.

In comparing the different parts of the United Kingdom with each other, and the United Kingdom with other countries, we must return to this question of the number of years' purchase, but for the present we need only notice that the few changes in the above table appear sufficiently justified by the special reasons stated.

We come, then, to the practical discussion of the causes of the change in 1875-85, as compared with 1865-75, in the rate of accumulation of property in the United Kingdom as expressed in money. How far is there a change in the rate of accumulation of things to correspond? How far is it due to a mere change in money values?

The question is not quite a new one. In a very interesting book, written more than sixty years ago, called "The Present State of England," by Mr. Joseph Lowe, which is well-known to students of the literature of Political Economy, though I must confess, for my own part, that I was ignorant of it when I wrote my former paper in 1878, this very question is explicitly treated. Mr. Lowe, in giving an account of English resources, treats in one part of the book of the capital valuation of the country. He employs as his basis the estimate of Mr. Colquhoun (a writer who was most unjustly decried, I think, by M'Culloch), for about the year 1812, and then makes a correction of them by allowing for the fall of prices in the interval. This correction is the more remarkable because Mr. Lowe, in making it, allows for the relative importance of different commodities, applying, correctly in fact, the principle of an index number and discussing with much good sense, the historical index number of Sir George Evelyn, who was the first, so far as I know, to employ the method. I shall have to notice Mr. Lowe's results afterwards, but for the present I am only pointing out that the point I am raising is not really novel, and that it has been present to the minds of former statistical inquirers.* Mr. Lowe also suggested the expediency of a tabular standard of value for making payments which is now exercising not a few minds, and will probably do so for a long time to come, until a solution is found, as the importance of some such standard for deferred payments, let alone statistical inquiries like the present, is beyond all question.

It must be obvious, to begin with, that some correction must be made in the present case for the change in money. On the one hand, the fact of a great reduction of prices between 1875 and 1885 is notorious. On the other hand, it is equally most unlikely that the rate of accumulation of things in

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* See Chapters 8, 9, and 10, and Chapters 3, 8, and 10 of Appendix to Mr. Lowe's book.

this country should have changed so much in the period 1875-85, as compared with 1865-75, as is represented by the diminution in the rate of growth of the Income Tax assessments, or by the diminution in the rate of growth of capital from about 44 to $17\frac{1}{2}$ per cent., or even, to take the upper part of the above table only, from 35 to 15 per cent. An inspection of the table in detail abundantly confirms this impression. In cases where there is absolute diminution of money capital, such as lands, farmers' profits, mines, and ironworks, there has been notoriously a great fall of prices; while, in regard to the two latter classes of property at least, there has been simultaneously a great increase of production, so that the apparent diminution of property shown must be nominal, not real.

But the question of the amount of correction raises very difficult points. What articles are to be taken as typical of things in general? and how is the fall of prices to be ascertained between two given dates? What should be the precise effect of such a fall on general valuations of property? Even if these particulars could be ascertained as between two given dates, how are they to be applied to valuations of property based on Income Tax assessments, which necessarily lag behind the real changes in the market values of the income valued, and the money amount of the income itself? It is plain, on a consideration of these questions, that we can only correct in a very rough manner.

As regards the fall of prices itself, I should be disposed to put it, comparing either period 1865-75 with the period 1875-85, or the year 1875 with the year 1885, at about 15 per cent. There are three general index numbers which we may compare for this purpose, and this is the mean of the result which they give, while the mean itself does not vary greatly from either result.

The first of these index numbers is the well-known *Economist* index No., which gives the following results :—

Period.	Average Index No.
1865-75	2,866
1875-85	2,419
Reduction	447 = 15½ %

Year.	Average Index No.
1875	2,778
1885	2,098
Reduction	680 = 24½ %

The next is Mr. Sauerbeck's, which gives the following results :—

Period.	Average Index No.	Year.	Average Index No.
1865-75	101	1875	96
1875-85	85	1885	72
Reduction ...	16 = 16 %	Reduction	24 = 24½ %

The third is that of Mr. Soetbeer, which gives the following results :—

Period.	Average Index No.	Year.	Average Index No.
1865-75	128·43	1875	129·85
1875-85	120 75	1885	108·72
Reduction ...	7·68 = 6 %	Reduction	21·13 = 16 %

And the mean of all these reductions is :—

	Period.	Year.
1	$15\frac{1}{2}$	$24\frac{1}{2}$
2	16	$24\frac{1}{2}$
3	6	16
Mean	$12\frac{1}{2}$	$21\frac{1}{2}$

Mean of periods and years 17 per cent.

I am not sure but that a smaller and more carefully formed index No., based on a few articles only, according to the plan followed by Mr. Lowe, would not be just as serviceable; but no very different results would be produced.

With the above may also be compared the fall in silver, amounting between 1875 and 1885 to a fall from $56\frac{7}{8}$d. to $50\frac{5}{8}$d., or 12 per cent.

It is most important in fact to keep in mind that we are not dealing here with the whole fall of prices which has occurred since what is called the appreciation of gold began, but only with what has occurred in a particular period of ten years. I should be disposed to place the fall in the interval covered by the present essay at about 15 per cent., which is a little under the mean of 17 per cent. above stated.

The correction of the capital figures, however, would depend on a further estimate as to how far the income tax assessments lag behind the real changes in the amount of income dealt with, or the money value of that income. There is undoubtedly some lagging behind, as in the income of lands and other items, but I am disposed to think not so much in general as would at first sight be supposed, public companies and other bodies being, of course, assessed exactly on their profits. At any rate, if changes in average prices are to be the test, I should be disposed to correct the comparative valuation between 1875 and 1885 either by a deduction of 15 per cent. from the valuation of the former period or by a similar addition to the valuation of the latter period.

On the whole I think also the average prices of staple articles are a good test. As I have explained in an address to the British Association in 1887 at Manchester,* money income of every kind of property necessarily depends on price. Some property is dependent directly; all property is dependent indirectly, and the valuation on the whole must vary directly as the variation of average prices of staple articles, or what may be called the price-level.

If the matter is considered for a moment, the necessity for this result will appear. As regards all properties held and worked by their owners, without payment of wages or rent, the effect of the fall of prices is instantaneous. The money return is so much less than it would otherwise be to the extent of the fall of price. If an owner has money wages to pay, but no rent, he is even worse off at first than an owner who has everything in his own hands. The prices change quicker than the wages, and the margin of income which has to be valued in valuing the property is reduced in even greater proportion than the prices of the articles produced. The case cannot be different where rent or mortgage charges or equivalent payments have to be made. Such payments are only a mode of distributing the net income; the corpus of the net income itself must be affected

* See "The Recent Rate of Material Progress in England." London: Geo. Bell and Sons.

in precisely the same way as if it were in one hand only, and were not distributed to different individuals. Hence, in fact, the complaints that some owners have had their margins swept away altogether, and that mortgagees or rent chargers have had to suffer.

The only doubts that can apparently be raised arise from the great bulk of mortgage or similar property, which seems to be unaffected by considerable changes of price, and the mass of Stock Exchange securities of different kinds, particularly public funds, which appear equally unaffected. It has to be considered, however, that the comparison is not between mortgages at one time and at another, but between what they are at the different times and what they would have been if there had been no change of prices. The same mortgage interest or rent-charge continues to be paid with as great a margin apparently as before. But the explanation is that the property has really become more productive—that continual efforts to maintain its money value, in spite of the fall of prices, have been successful. The margin has not been increased as it would otherwise have been. Similarly, as regards Stock Exchange securities, if they are in the nature of mortgages, the same explanation applies; while if they are in the nature of residual margins, the margin may have been maintained, in spite of the fall in prices, by greatly increased production. It is less than it would otherwise have been, though it may not be less on a comparison with a previous period. The only exception I can think of is in the case of public funds where the funds are held by one community, and the debt is that of another community. The former is so much richer, the latter so much poorer, than it would otherwise be by the fall of prices. There is a real as well as a nominal change corresponding to the fall of prices. By such a change between 1875 and 1885 a community like England should have benefited. There need be no reduction in this part of its capital, as far as old securities are concerned, as compared with what it would otherwise have been owing to the fall of prices. But looking at matters broadly, the differences thus possible seem too small to be allowed for.

Correcting, then, the valuations of 1875 and 1885 as above suggested, we should find that, by reducing the valuation of 1875 by 15 per cent., the total would be about $7\frac{1}{2}$ thousand millions instead of $8\frac{1}{2}$ thousand millions, upon which an increase to a little over 10 thousand millions is very nearly 40 per cent., thus approaching the increase in the previous decade. Applying the correction to the 1885 figures and adding 15 per cent. to them, the total would be $11\frac{1}{2}$ thousand millions, rather more, which again is an increase of nearly 40 per cent. upon $8\frac{1}{2}$ thousand millions.

So much difference is apparently made in the valuation by a difference of 15 per cent. in the level of prices only.

The correction of course cannot pretend to any exactness. It only serves to fix in our minds that probably there is less difference in reality in the growth of wealth in the country in the two periods 1865-75 and 1875-85 than would seem at first sight. The necessary correction for prices makes most of the difference.

A question of a different sort is suggested. Is there any means of deducing from these figures, what, in point of fact, is the normal rate of growth in the country in wealth, from which a variation upwards or downwards in the actual money figures would imply an average rise or fall in prices, or change in the purchasing power of money?

So far as the remarks already made go, the answer would appear to be that if, allowing for the fall of prices since 1875, the rate of growth has been about 40 per cent., which was about the rate of growth in the ten years before, during which no allowance seemed required for the fall of prices, then the normal growth must be taken to be about 40 per cent. in ten years. This would, however, raise the question whether in the decade 1855-65 in which prices rose greatly, and in which the growth of the Income Tax assessments was nevertheless only 28 per cent., the actual advance in wealth measured by things can have been so great as it has since been. The comparison might be carried further back, and the figures of 1845 compared with those of 1815, from which it would appear that the fall of prices in that interval must have been enormous if wealth had really grown in the interval as it has since done —such a fall of prices in fact as it is difficult to believe in. The question is not without practical interest, as it is difficult not to believe that the real growth of wealth in the country must have been tolerably steady all through, in which case the normal growth cannot be so great as 40 per cent., assuming prices to be steady.

To elucidate the problem a little I have thought it would be interesting to insert the accompanying statement of the growth of Income Tax assessments from period to period since 1815. (See Table p. 59.)

This can only be done for England, and Wales, and for Scotland, the Irish figures, which are in any case less important, not going back so far.

The effect of this table is that, while the increase of population all through has been tolerably uniform, the average annual rate of increase of Income Tax assessments has been :—

	England.	Scotland.
	%	%
1815-45	1·1	1·7
1845-55	1·5	2·5
1855-65	2·7	1·7
1865-75	3·7	4·1
1875-85	1·1	1·4
Mean	2·0	2·3
Mean (exclusive of 1815-45)	2·25	2·42

From this, assuming the state of prices to have been in 1885 much the same after 40 years' interval as they were about 1845, the normal rate of growth of wealth would come out as nearly 2¼ per cent. per annum, from which it would also follow that, in spite of the assumption made in my former paper that the growth between 1865-75 was not swollen by any general rise in prices, yet that some such augmentation must have occurred. Part of the increase of capital then dealt with in 1875 must have been a money increase only. and even part of the increase between 1855 and 1865, the total enhancement of prices thus apparent being about 15 per cent., which corresponds fairly well with Mr. Jevons' estimates in 1862 of the depreciation of gold. It is impossible to reason on the subject at all finely, owing to changes in the stringency of valuation; but either the mean above stated,

[CONTINUED ON P. 60.)

Statement showing the gross amount of property and profits assessed to the Income Tax in England and Wales and Scotland in the undermentioned years, the amount and proportion of the increase in each such year over the previous year mentioned, and the average annual rate per cent. of increase in each period :—

Years.	Amount Assessed.	Increase over Previous Year. Amount.	Increase over Previous Year. %	Average Annual Rate of Increase. %	Average Annual Rate of Increase of Population. %
	England and Wales.				
	Thousand £	Thousand £			
1815...	156,735		%	%	%
1845...	220,465	63,730	40·7	1·1	1·4
1855...	256,008	35,543	16·1	1·5	1·2
1865...	335,175	79,167	30·9	2·7	1·2
1875...	481,775	146,600	43·7	3·7	1·3
1884...	530,538	48,763	10·1	1·1	1·4
	Scotland.				
1815...	14,293				
1845...	23,832	9,539	66·7	1·7	1·1
1855...	30,544	6,712	28·2	2·5	0·8
1865...	36,195	5,651	18·5	1·7	0·7
1875...	53,935	17,740	49·0	4·1	1·0
1884...	61,118	7,183	13·3	1·4	1·1

as a whole, underrates the normal growth of wealth, measured by things and not by money, or there must have been an inflation of money values, of prices, and of property as the result of prices, between 1855 and 1875. The subject can hardly be followed out in this connection. It can only be studied properly in connection with changes in wages as well as prices. But the experience of many years proves, at least, that the recent growth of the Income Tax is far below the normal rate of the past forty years, and that it can only be explained by the fall of prices, which alters all the valuations. The growth between 1875 and 1885 has, in fact, got back to the rate between 1815 and 1845, when there was an enormous fall of prices.

There is yet another conclusion to be drawn from the figures which has a bearing on the larger question of the appreciation of the standard. It is sometimes argued that when prices fall there need have been no change in the money—it is only the commodities that need have changed. It is assumed that a line can be drawn at a given date, and that the increase of commodities or money can be measured as from that date. But if it is at all correct to assume that throughout the whole period covered by the above table commodities have been increasing with comparative steadines, yet, nevertheless, there have been great changes from time to time in the money growth of property in the country owing to changes of prices, then these changes of prices themselves, when long periods are surveyed, must be properly held to be determined by changes in money and not in commodities. Dynamically, commodities do not change all through; their increase is constant; but dynamically money does change: it moves at one time in such a way as to keep prices in equilibrium, or even make them, and all property valuations with them, rise; at another time it either diminishes or only grows so slowly that all money prices and property valuations with them fall. This result can only be described as due to changes in money. The opposite view, ascribing the change in a given period to commodities, is the result of a study of the subject for a short period beginning with what is an impossibility in such a subject—a statical equilibrium. Viewing a long period dynamically, it is beyond all question that the commodities are comparatively steady and only the money changes.*

This is not a paper on money; but, having said so much, I may be permitted to add that if in future commodities are to progress as they have done in the past, then unless money changes dynamically, prices must continue to fall, and income tax and property valuations must increase more slowly than they otherwise do, or even diminish. An income tax increasing ten per cent. only in ten years will be a very different thing, as the Chancellor of the Exchequer recognises, from one which increases 40 per cent. in the same period.

In making these comparisons in my former essay I took occasion to notice also the official figures of the Legacy and Succession Duty Returns, showing from time to time a growth in property corresponding to

* See for a fuller explanation on this head the paper on "Recent Changes in Prices and Incomes Compared," read last year and published in Statistical Society's Journal, December, 1888.

what is shown in the Income Tax Returns. It appears unnecessary to do so now, the superiority of the Income Tax figures for such a purpose being universally admitted. There has also been a change in the last few years in regard to the Legacy Duty, which makes the figures no longer comparable. The Probate Duty figures must be substituted, and these cannot be carried very far back with the needful detail.

CHAPTER IV.

DISTRIBUTION OF WEALTH BETWEEN ENGLAND, SCOTLAND, AND IRELAND.

Writing in 1878, I made no attempt to show the distribution of wealth between the communities of England, Scotland, and Ireland, which compose the United Kingdom. I regard any attempt at such a comparison very doubtfully, indeed. The people constituting the United Kingdom are closely intermixed in their business relations. Property in one part of the kingdom is held by people resident in another part; there are not a few whose domicile is by no means certain, who are as fixed in Scotland or Ireland as they are in England, leading, in fact, a dual existence, part "in the country," in Scotland or Ireland, and part in the metropolis; so that for the purposes of a comparison like the present, they cannot be classed as distinctly and exclusively English or Scotch or Irish. There is, moreover, a considerable amount of foreign property belonging to people in all parts of the United Kingdom, but assessed exclusively in the metropolis. An exact division between England, Scotland, and Ireland, representing the wealth of each section, as the table above given represents the wealth of the United Kingdom, is accordingly impossible.

I have been encouraged, however, to make an attempt at separation, as useful, for certain political computations, as helping, if properly done, to show the relative strength of the metropolitan community, that of England, in comparison with the comparatively outlying communities of Scotland and Ireland. In doing so we must make the assumption that, on the whole, the foreign income, and certain other income, must be assigned exclusively, or mainly to the metropolitan community because it really belongs to the people of the United Kingdom in their metropolitan and even cosmopolitan capacity, and on a division, if such a thing were conceivable, would most probably go with the metropolis.

For the rest it will probably be convenient to follow the divisions of the Income Tax assessment generally, and credit to each community the property locally situated, although we know, for instance, that railway shares and other property in Ireland and Scotland are held in England and *vice versa*. The presumption is that this mode of division will not assign too little to Scotland and Ireland; it will even assign to these countries so much in excess as to be a set-off against any defect that may arise through the whole or larger part of the metropolitan or cosmopolitan capital, as above explained, being assigned to England.

I have accordingly to refer to the Tables in the Appendix in which such a division between England, Scotland, and Ireland is attempted. (See Tables, Appendix III.). These Tables follow exactly the model of Table A. inserted above (Chap. II.), so that it will be easy to compare the details of each section with the similar details for the United Kingdom as well as for each other.

The general effect is striking enough. The preponderance of England is manifest. Scotland is a long way behind. Ireland is comparatively insignificant. If we include the element of population, Scotland is not far behind England in the amount per head, but Ireland is a long way behind.

In the following short Table a comparison is made both of total amounts and amounts per head :—

Property in England, Scotland, and Ireland, and the amount per head of population compared. [The calculations are made on the population of 1887.]

	Property.	Per Cent. of Total.	Property per Head.
	Mln. £.		£
England	8,617	86·0	308
Scotland	973	9·7	243
Ireland	447*	4·3	93
Total	10,037	100·0	270

England, in fact, on this showing, possesses rather more than 8½ tenths of the wealth of the United Kingdom ; Scotland about a tenth ; and Ireland less than half a tenth. The wealth of the metropolitan community is equal to about £308 per head ; of Scotland to £243 per head, or rather less than the average of the United Kingdom ; and of Ireland to about one-third of the average, or about £93 per head only.

* In roughly estimating in 1886, in a paper on "The Economic Value of Ireland to Great Britain," I put the total capital of Ireland at about 400 millions. The present figure I should still think too high if a strict account were taken, but I have followed here the method explained in the text of distributing the Income Tax income which gives some advantage to Ireland. The present is also a more detailed statement than that of 1886.

A rapid survey reveals in a moment how these great differences arise. Apart from land in Schedules A and B, Ireland possesses very little of the great elements of capital which constitute the wealth of the United Kingdom. Its total capital connected with Income Tax income is only about 400 millions, and of this about 230 millions arises from land in Schedule A, or the occupation of land in Schedule B, leaving only 170 millions as the whole capital of the Irish people in connection with the other Schedules. The income in Ireland under Schedule A for land and houses is valued at a smaller number of years' purchase than similar income in Great Britain, a point which will be discussed presently; but this is not the case with other income. Ireland is, in fact, singularly destitute of all the constituents of wealth under Schedule D; its total income under this head in the appended tables above the Income Tax limit being about £4 millions only, as against a similar income in the whole of the United Kingdom of £148 millions; so that Ireland, as regards Schedule D, is one-thirty-seventh only of the United Kingdom. It is in this way, then, that the difference between Ireland and the rest of the United Kingdom arises.

No doubt some difference is also made by the difference in the number of years' purchase at which certain property in Ireland is valued, as compared with similar property in the United Kingdom. Land in Ireland is valued at 15 years' purchase only, as compared with 28 years' purchase in England and Scotland; and houses in Ireland are valued at 12 years' purchase only, as compared with 15 years' purchase in England and Scotland. Even, however, if we applied the same number of years' purchase in Ireland as in England and Scotland, the valuation of wealth in Ireland would still lag far behind in its proportion to that of its neighbours. About £140 millions would be added to its total capital, and the amount would remain under 600 millions, about a seventeenth, in place of a twenty-third, part of the wealth of the United Kingdom.

There is, however, I contend, no justification for estimating income from Irish land and houses at a similar number of years' purchase as similar property in the United Kingdom. We should get a false idea of Irish wealth and relative resources if we did so.

The reason as regards houses, the smaller item, is plain. The average rent of houses in Ireland is much below what it is in England or Scotland, and the lower the rent, at any rate when it is very low, the smaller number of years' purchase it is worth. I need hardly add that many of the so-called houses in Ireland for which rent is paid are merely huts, and not properly comparable with the houses of a more advanced community. The property is not of the same kind.

The reason as regards land is, first, that from the exceptional difficulty of collecting small rents, land in Ireland being in smaller holdings than in Great Britain, there is more difference in Ireland between gross and net rental than in England and Scotland. The capital value is really less because the net income on the same gross figures is not really so large. Next and even more important the income from land in Ireland, like all other income to some extent but even in greater degree, is rendered insecure by the political agitator, and its capital value is consequently less than it would be if politics were more stable. The difference is a real loss to the insecure community. It means that the general credit of the community in proportion to its income is less than that of a more stable community with the same income; it can do less with what seems the same property than a more stable community can. Individually the loss is marked enough. The same amount of income in the one community actually exchanges for less than it does in the other. The test of the market proves that it is not the same thing.

Fifteen years' purchase for the income of Irish land may seem too little; but the rental itself in the Income Tax returns, it must be remembered, is a little exaggerated above the reality, as many Irish landlords only too well know. The net ascertained and paid rental may sell for more than fifteen years' purchase, though according to recent reports of sales not for very much more; but the nominal rental here in question is as moderately valued at 15 years' purchase as the similar rental in England and Scotland at 28.

Another point is raised by these comparative valuations. If the rent of land in Schedule A, it is said, cannot be valued at more than 15 years' purchase, ought not the capital value of tenant-right to be included under Schedule B, the tenant in Ireland possessing a property of a kind which is not possessed by the tenant in England or Scotland, and which is, in fact, saleable? The answer to this is in part that it will be found something is in fact credited to Irish agricultural capital under Schedule B which is not credited to the same capital in England and Scotland, because Irish occupation capital in proportion to rent, apart from tenant-right, is not so large as in England or Scotland, and yet the same number of years' purchase is applied. But I object to including the capital value of tenant-right, except to a very moderate degree, as being, in fact, not a positive quantity which can come into comparisons like the present, the so-called capital value of tenant-right being largely a fine which the excessive land hunger compels farmers to pay to live, and not a real capital asset which would be available on a large scale in the open market. Even if sales of tenant-right, therefore, were better recorded than they are, and the means existed for forming averages over Ireland, I should doubt the propriety of allowing for this capital value to more than a moderate extent—to such an extent, for instance, as would include the cost of the houses which tenants have built, and other substantial improvements in the way of drainage and manuring they have made. The fine paid for the right to live is not to be reckoned, at any rate in comparison with a country where no such fines are paid, and where the rental is unquestionably a simple bargain between landlord and tenant, the tenant professedly having nothing but the occupation capital.

It is fair also to add, I think, that Irish capital is not only greatly less than it would otherwise be, owing to the political insecurity of the country, but it is also lessened by the excess of its population above what is needed for the most fitting agriculture. Rent is below what it is in England for similar qualities of land, because the land has to support a larger cultivating population, and rent of course is only possible after the cultivating population, according to the scale of living it is able to maintain, has been supported. With a different arrangement for cultivation, requiring a smaller population, rent might be increased on the one hand, and the comfort of the cultivating population on the other, in which case the capital value of the land would undoubtedly be much increased. The possibility of a great increase of Irish capital, as soon as the political and economic causes of its being so small as it is are removed, must accordingly be recognised. Political insecurity and over-population combined probably make its capital less than it would otherwise be even now by from two to three hundred millions sterling, the mischief being about equally divided between the two causes of evil specified. Whatever figure we may place upon it the loss must be very great.

I have referred very little in these remarks to the case of Scotland, because it is so much on all fours with that of England. It is not a contrast to England. As showing the difference, however, between a politically insecure country and one that is every way secure, and between a country with an excessive cultivating population and one free from that evil, it may be pointed out that while Scotland, as regards land, has rather less income than Ireland, though not so very much less in spite of its smaller area, yet with a population of just under four millions, as compared with nearly five in Ireland, it has more than twice the capital—973 millions, as compared with 447 in Ireland—and that this difference largely arises in connection with Schedule D. The income in Scotland from capital under Schedule D dealt with in the tables in the Appendix is in fact about 15 millions sterling as compared with 4 millions from the same sources in Ireland. No contrast could be more striking.

The main lesson of the whole comparison is, however, that already given, viz., the predominance of the metropolitan community of England. Reckoning by wealth England should have 86 per cent. of the representation of the United Kingdom, or 576 members out of 670. Scotland by the same rule should have about 64 only; and Ireland no more than 30. These are very different figures from those which actual politics have established, or which the exact proportions of population would give, though even the latter would give a smaller representation to the weaker parts of the community than is now given. But for all that they point to a real weakness, I believe, in our present constitutional arrangements. It is neither wise nor prudent to make so complete a divorce as has now been made between the real strength of different parts of the population of the United Kingdom and the representation in Parliament. There should be a representation of forces in Parliament, if we had perfectly just arrangements, and not merely a counting of heads. Nothing can be more absurd to the mind of any student of politics, who knows how forces rule in the long run, than the system now established as between the metropolitan community of England and its companions in sovereignty by which one of the companion communities, and that the least entitled to privilege, obtains most disproportionate power.

CHAPTER V.

HISTORICAL RETROSPECT.

Another comparison to be made is that between the figures of the present time and more distant periods. It will of course be impossible in such comparisons, to show the same details as in the recent years, when we have the benefit of Income Tax Returns on the same basis for several periods, but the older totals at least, and possibly some of the main details may be compared with these of the present time. In certain respects, I am inclined to think, the figures we are using are more serviceable and more trustworthy, when the right precautions are taken, for extended historical comparisons than for any other purpose. The great intervals of time and the great differences in the figures, in these extended historical comparisons, bring out certain facts with marvellous clearness, which could not be brought out in any other way.

It is most interesting to find that the inquiry as to past valuations of aggregate property takes us back to a period in which statistical studies in this country to a certain extent originated, and to authors who are well-known as among the founders of the study, which they called by the name of Political Arithmetic. The period is the latter part of the 17th century, and the authors are Sir William Petty and Sir William Davenant, both of whom devoted no little attention to this very question of the valuation of aggregate property, including the connected subject of aggregate income. In fact one of the main objects of their "Political Arithmetic" was to obtain an idea of the resources of the country, and of their growth, partly for purposes of taxation, and partly for comparison with the resources and growth of England's dependents or neighbours at the time; Ireland, France, and Holland, being the chief countries considered. The subject has only been intermittently studied in the same form since, but those who began, we may believe, had a good idea of what they were about, and it is all the more instructive, therefore, for us to go back in this matter to the earliest promoters of formal statistical knowledge in this country.

I do not propose, of course, to go through the entire work of these two authors on this head. It will be sufficient to notice briefly the leading estimates, in which a great deal of their work is summed up, only premising that those who care to pursue the study will find that the estimates now to be used, and compared with those of the present time, were not haphazard guesses, but were based on available data, carefully considered and built upon. There are certain points of difference between the two authors which I shall endeavour to explain, but this would, of course, be impossible if they had not themselves used what were largely common data, and shown how their sums were done. I may add that the estimates can practically be used, so as to form a third statement for the year 1600 good enough for comparative purposes. First, however, I shall notice the various statements of the two authors separately.

Sir William Petty, as the founder of Political Arithmetic, and as the author of the statement earliest in date, the date as near as I can judge being 1679, ought first to be noticed. He makes many statements and calculations as to population, taxable recources, income and property, in his numerous essays in Political Arithmetic, but for our present purpose, these are summed up in his little "Verbum Sapienti." The result of the calculation there given, may be summarised as follows:—

Statement of the Income and Capital of the people of England anno circa 1679, summarised from Sir William Petty's Verbum Sapienti

[In mlns. stg.]

—	Income.	Capital.
	£	£
Total	40	250
Land	8	144
Houses	$2\frac{1}{2}$	30
Shipping	...	3
Stock of Cattle, &c.	...	36
Coined Gold and Silver	...	6
Wares, Merchandise, Plate, and Furniture ...	...	31
Income from above sources, exclusive of Land and Houses, and from personal services ...	$29\frac{1}{2}$	...

Sir William Petty, in his essay, proceeds to capitalise the income from personal services as well as the income from property by a process which appears to me not quite correct as introducing a figure, not on all fours with the others in his statement, and which would not at any rate be comparable with statements made up on the basis of the Income Tax returns, according to the method followed in the present paper. I have, therefore, omitted this additional computation in the above summary, but those who are interested can easily read for themselves in the original. The above figures, if at all near the mark, appear to be strictly comparable with those of the present time.

The enormous difference between two centuries ago and the present time is at once palpable. Taking the population of England as little over five millions when Sir William Petty wrote (his own figure of 7 millions appearing somewhat excessive), the above figures would give something less than £8 per head of income, and £50 per head of capital for the whole people; the capital now, as we have seen, being approximately £270 per head, and the income being probably not less than about £34 per head. The difference is so enormous that the largest possible corrections would still show an enormous advance between two centuries ago and the present time The difference, it may be said, would not be so great if we allowed for the greater purchasing power of money two centuries ago. But as far as I can judge no allowance, or little allowance, should be made on this head. Great masses of articles are much lower in money price now than they were then, and the staple article, wheat, is also rather cheaper.

The items may be more conveniently noticed in connection and comparison with Sir William Davenant's figure to be presently considered. It may be mentioned, however, that the land rent in the above statement works out at 18 years' purchase, and that this figure of 18 years' purchase is explicitly adopted by the author, while only 12 years' purchase is allowed for house rent. The other items are all arrived at on consideration and for reasons given. Lands and houses were of course at the time in question much more in proportion to the total wealth of the country than they are now, so that the preponderance here given to them is *prima facie* reasonable. The data regarding them at the time were also fairly complete and trustworthy, there being assessments for the 4s. tax, since become the land tax, and for other taxes, while the more exact knowledge as to London and some parts of the country on many points could be made use of by a simple rule of proportion to supplement the less complete knowledge on the same points as to remoter parts of the country.

Coming next to the estimate of Sir William Davenant, the first remark to make is that in using his figures we must associate with him another well-known name, that of Mr. Gregory King. Sir William Davenant's figures, when we look into them, are found to be, and are, in fact, expressly acknowledged to be those of Mr. Gregory King, though Sir William Davenant discusses them very fully in adopting them. Whether Gregory King was employed by Sir William Davenant is not quite clear; but the connection was, at any rate, very close, and I shall therefore treat the figures as those of Sir William Davenant and Gregory King together, taking them directly from Gregory King's essay. This essay is reprinted in full in another book well-known to economic students, Mr. Chalmers' "Resources of the Nation," published at the end of last and the beginning of the present century, in which the material history of England and the Empire is traced throughout the eighteenth century, that is, from Gregory King's time downwards, with the addition of various notes for earlier periods. Mr. Chalmers, I may take the opportunity of noting, was for many years an officer of the Board of Trade. His book is an admirable essay in every way. Mr. Gregory King himself was by profession a surveyor, and, therefore, well acquainted with the data he uses, chiefly those showing the income and value of land, for which, as already hinted, in the 4s. tax and other official records which have either perished or are buried in the Record Office, there were probably more official data available to people like Gregory King, disposed to use them, than we should now be apt to imagine.

There are three documents of Gregory King's, which may be referred to. Only one of these is a statement of capital, but the other two are useful by comparison and otherwise for studying it.

The first of these is Gregory King's calculation of the income and expense of the community according to the different classes,—a most minute table. The second is a table exhibiting the author's idea of the several sorts of land in cultivation, the produce, the rent, the capital of the cultivation, and the like particulars. The third is the table to which I shall have to call particular attention, including, as it does, a statement of the estimated value of the property of the nation. The first is, apparently, the most fanciful, the nature of the data not being apparent; but if we compare it with the others, it will be obvious that the author must have had data of some sort, at any rate, for the totals, however imperfect his distribution among different classes may be.

The general effect, then, of these tables is as follows:—1. The income of the country in 1688 is reckoned as £43,500,000, or nearly £8 per head, of which about £13,000,000 is the rent of land and other hereditaments, about £10,000,000 being considered the rent of land alone, and the remainder is derived from trade and industry or labour of some kind, including agricultural labour.

2. The valuation of the country is computed at £650,000,000, or, deducting a valuation of income from personal services in which Sir William Petty's similar computation is followed, at £320,000,000, the items being as follows:—

1. Rent at 18 Years' Purchase	£234,000,000
2. *Capitalised Value of Remaining Income of the Nation, 11 Years' Purchase*	*330,000,000*
3. Stock in Money, Plate, Jewels, and Household Goods	28,000,000
4. Stock in Shipping, Forts, Stores, Goods, Instruments, and Materials	33,000,000
5. Live Stock, Cattle, Beasts, Fowls, &c.	25,000,000
Total	*£650,000,000*
Deduct—	
Item No. 2 as on a different basis from modern Estimates	*£330,000,000*
Net Total	£320,000,000

3. The annual accumulation of the country, the excess of the income over the expense, is put at no more than £1,800,000, which would be in round figures about £20,000,000 every ten years.

In many respects, therefore, Gregory King, like Sir William Petty, supplies figures in a form which can be compared with those of the present time. The methods followed are, in fact, much the same, and I am disposed to think that Sir William Davenant and Gregory King have simply bettered Sir William Petty's instruction, going through the data more fully, and discussing some points—such as the probable excess of actual over assessed rental—with perhaps greater knowledge.

Before comparing the two statements, let me only just notice, as regards Gregory King's, how real the computation for the most part is. Thus, as regards rent, the second statement referred to shows that he was fully alive to the difficulties in the way of arriving at an exact figure. He expressly points out that his estimate is larger than the rental of the country which had been got hold of in the assessments for the 4s. tax, now known as the land tax, and he points out in detail where the difference arises. Farther, his statement shows that he has compared the value of the produce with the rent per acre, and the yield of the different crops required for the consumption of the community valued at current prices. He may err on points, but his figures are not pure guesses; they are built up on data which he must have had some means of checking. Comparing his figures with those of our modern agricultural returns, we find that he has hit the mark pretty nearly. His estimated area is 39,000,000 acres, as compared with 37,000,000 acres ascertained in modern times. His cultivated area, again, is only 21,000,000 acres, as compared with 24,000,000, or thereabouts, in modern times, from which we may infer that his estimate was somewhat in excess, allowing for commons and waste land since brought into cultivation, but not more, perhaps, than 10 per cent. in excess. Considering the data which must have been in his possession, his work is thus, in my opinion, wonderfully good. At any rate, allowing for the great distance of time, and the wide difference in values, we may at least use Gregory King's estimate of capital, like that of Sir William Petty, for comparison with the present time *quantum valeat.*

The estimate altogether comes to about £120 per head on an estimated total population of $5\frac{1}{2}$ millions as compared with the present average of £270 per head for the United Kingdom and £415 for England only. As already seen, too, the question of changes in the purchasing power of money does not affect the comparison. Whether we take this estimate or that of Sir William Petty already noticed for comparison with the present time, the differences are plainly immense.

The differences between the two statements are brought out in the following comparison in which I omit any capitalisation of personal services:—

Capital Valuation in 17th Century.

Sir William Petty, (1679)	mlns. £	Gregory King & Davenant, (1688).	mlns. £
Land	144	Rental	234
Houses	30	Live Stock, &c.	25
Stock of Cattle, &c.	36	Money, Plate, Jewels, and Household Goods	28
Shipping	3	Shipping, Forts, Stores, Goods, Instruments, and Materials	33
Coined Gold and Silver ...	6		
Wares, Merchandise, Plate, and Furniture	31		
Total	250	Total	320

Thus, the main cause of Sir William Davenant's estimate being higher than Sir William Petty's is the higher value put upon the rental by the latter than the former in two ways. It is first taken to be $13\frac{1}{2}$ millions instead of $12\frac{1}{2}$ millions, which is Sir William Petty's figure, owing to the special allowance made by Gregory King for the reasons stated on account of the under assessment for the 4s. tax. Next, Gregory King capitalises the whole rental, land and houses together, at 18 years' purchase, while Sir William Petty only capitalises house rent at 12 years' purchase. The extra rent allowed for, capitalised at 18 years' purchase, makes a difference of £18,000,000; and the different rate of capitalisation for the house rent, viz., 6 years' purchase, on $2\frac{1}{2}$ millions, makes a difference of £15 millions—total 43 millions. In proportion, the difference is very considerable, but it may be partly accounted for by Gregory King's estimate being made at the later date, as well as by greater care in allowing for underestimate in the tax assessments. The additional number of years' purchase on the average seems also to be justified by the fall in the rate of interest in the interval between the two statements, so that if Gregory King had valued land and houses separately as Sir William Petty had done, he must have taken land at more than 18 years' purchase, although 12 years' purchase might still have been about sufficient for houses.

With regard to the other items, constituting what was at that time called the stock of the country, the circulating as distinguished from the fixed capital, a close comparison is not easy owing to the cross divisions. The general effect is that this stock is valued by Sir William Petty at £76,000,000, and by Gregory King at £86,000,000, the latter, it will thus be seen, being again in excess. The difference, on the whole, might not be considered serious, but there is a curious difference in detail. Sir William Petty, it will be observed, is in excess of Gregory King in one item, that of live stock, where his estimate is £36,000,000 against Gregory King's £25,000,000. The consequence is, that the remainder of the stock is valued by Sir William Petty at £40,000,000, by Gregory King at £60,000,000, a difference of 50 per cent. between them, which is all the more serious as the difference is in the opposite direction to that which arises in regard to the live stock, and there are no circumstances which make it likely that live stock would diminish in value between the two dates, while other descriptions of stock in the same period would increase in value. I find on examination, however, that a large part of the difference would be accounted for by Sir William Petty's exceedingly low estimate for coinage. The difference between the coinage estimates of Sir William Petty and Sir William Davenant amounts to about £12,000,000; the former arriving at a sum of £6,000,000, according to a method explained in his *Quantulumcumque*, and the latter arriving at a sum of about £18,000,000 by a different method. Into the details it is unnecessary to enter here, as the question was brought to the test of experiment shortly after, at the great recoinage of 1696, when a coinage of £7,000,000 in silver was required to renew the silver coinage alone, and the whole circumstances were such that the gold coinage in use and hoarded must have been considerably more. Gregory King's estimate on this head, then, seems to be the more correct; but we must recollect that he estimates for a date later than Sir William Petty, and this may always account for a small part of the increase.

On the whole, we cannot conclude that the capital of England increased between Sir William Petty and Gregory King's estimates to the amount of the difference between them, though some increase must have taken place, and I am disposed to accept Gregory King's figure as, on the whole, the more carefully and thoroughly done, and the one most properly comparable with the estimates made in this essay for the present time. Practically, the advance is so great since two centuries ago that, great as are the differences between some of Sir William Petty's and Gregory King's figures, if we look at them strictly, the impression of the comparison with the present time is the same, whichever estimate we take.

I have noticed that these estimates can be used to form a third estimate, going back to 1600, but I shall only refer to this briefly. The authority is a writer in the *British Merchant*, a publication of the early part of the last century, in which the Treaty of Commerce with France of that period was discussed from a Protectionist, or perhaps we might say even more accurately, a Fair Trade point of view, and the principal articles of which publication were afterwards collected in three volumes under the same title of a "British Merchant."* The writer referred to, who is described as the Inspector-General of Customs, requires for his argument to estimate the proportion of foreign commerce to the income and wealth of England, for which purpose he accordingly falls back on what are evidently the estimates already referred to, though there are minor discrepancies, discussing therewith other estimates which had been made. From this paper it appears that at the beginning of the seventeenth century the rental of England was about £6,000,000, giving a capital of £72,000,000 only at twelve years' purchase. As the "stock," according to the above proportions, would not be much more than a third, the total valuation of England at the beginning of the seventeenth century could not be more than £100,000,000. or about £20 per head. The Inspector-General's figure is only

* The British Merchant: or, Commerce Preserved. London, 1721.

£17,000,000 for the stock, making with other capital only £89,000,000 in all. These figures, it may be added, are *prima facie* probable, assuming a rental of about £14,000,000 at the end of the century, because there was a great fall in the purchasing power of money in the early part of the century. Of course, in comparisons with the present time, this change in the purchasing power of money would have to be allowed for, though we need make no such change as we have seen in comparisons with the latter part of the seventeenth century.

The same British Merchant practically also gives a figure for the time he writes—viz., between 1713 and 1721, since he estimates the population of England as then 7,000,000,* the annual expense £49,000,000, and the rental at least £14,000,000, equal at eighteen years' purchase to £252,000,000. The stock at the same time he estimates at £88,000,000, — total, £340,000,000. There is a little want of precision, however, in the data, so that in one way this is little better than a fresh estimate on the basis of Sir William Petty and Gregory King's figures, and for a period which at this distance is practically the same. It is probable enough that with the defective data of those days, the liability to difference, owing to the changes caused by lapse of time, was not sufficiently allowed for by those who were making the estimates, and who had not even in view the expediency of making comparisons for the statistical object alone, the figures being always employed for some other argument. The "British Merchant" recognises progress during the seventeenth century, but, curiously enough, does not explicitly

* An over-estimate apparently.

make an estimate of the capital and stock of England for his own time, as distinguished from the latter part of the seventeenth century. We may be sure, however, that as the best estimate of the population of England about 1696 does not carry it higher than $5\frac{1}{2}$ to 6 millions, then, allowing for the probable increase down to 1713 or thereabouts, the estimate of 7 millions for the time, though a little in excess of the true figure, with the corresponding estimates of income and capital, could not be far off the mark. At the most I think the figure of 340 millions should be increased by no more than a tenth to make it properly comparable with Gregory King's estimate of 320 millions for the latter part of the seventeenth century.

Passing from the seventeenth century and the beginning of the eighteenth century, I find no good estimates of income and capital properly comparable with those already described until we come to the close of the last and beginning of the present century, when the great wars arising after the French Revolution seem to have given fresh and practical interest to the question of the resources of the country. There are one or two publications, however, which I should like to notice before passing on.

The first is Sir Matthew Decker's essay on the "Causes of the Decline of Foreign Trade," written in 1740, in which there are several notices of the rental and income of the people of England at that time, although there is no attempt to capitalise them. His estimate of the income is based on that of the British Merchant already referred to, with the two differences that the population which the British merchant estimated at 7,000,000 is now reckoned at

8,000,000,* and that the expense per head is reckoned at £8, instead of £7 per head, on account of the increase of the average expense, owing to taxes, &c., in the interval.† As regards the question of the expense per head, the calculation is perhaps open to some criticism; at any rate we should have liked a fuller contemporary investigation on the point. But it is also to be observed that a statement of the kind by a writer like Sir Matthew Decker, who was altogether wideawake, is not without its value. It would not have been made without some reference to what was actually probable on various grounds, as well as on the grounds stated, at the time. The result then is that the income of the people of England is valued in 1740 at £64,000,000, as compared with Sir William Petty's and Gregory King's estimate of £40 to £45,000,000 at the end of the previous century, and the British Merchants' estimate of £49,000,000 at the beginning of the 18th century. The amount of this income considered to be rental (land and houses together) is also estimated in the same essay at £20,000,000 a great advance, it will be observed, on the £6,000,000 at the beginning of the 17th century, and the £12,500,000 to £14,000,000 at the end, although at the time Sir Matthew Decker wrote rents are spoken of as having lately been falling, or at least the net income of the landlord diminishing, owing to poor rates and taxes. Sir Matthew Decker's object was in fact to improve the condition of the landlord by removing restraints and taxes upon trade and especially upon foreign trade,

* An excessive estimate apparently. The true figure could hardly have been much more than 7,000,000.

† Sir Matthew Decker, p. 28.

and it is probable enough, for many reasons, that rents before 1740 had not been rapidly increasing.

Using these figures of Sir Matthew Decker as the basis, and applying Sir William Petty's and Gregory King's methods, the valuation of England about 1740 would be something like the following :—

	Mlns.
Rental (18 years' purchase of 20 millions)	360
Stock—one-third of ditto...	120
Total	480

(In round figures about £500 millions.)

—a figure which, at any rate, would compare not unfairly with the preceding estimates, there having been no material change of prices in the interval to be allowed for.

The next publication to notice is a curiosity in its way, and I should almost have passed it over altogether if it had not been a curiosity, and if it had not also been noticed in a third publication, which will be referred to presently, and which is one of the most interesting I have come across in the series. This second and curious publication is called "The Essay on the National Debt," &c., by Andrew Hooke, who ventures very dogmatically to supersede Sir William Petty and Davenant, and to substitute what he calls an improved method for valuing a country's wealth, which is to multiply the cash, or assumed cash, of the country by 20 to find the amount of the personal stock, and then, after ascertaining the capital value of the land directly, to add together the values of the cash, the personal stock, and the lands. In this way Mr. Hooke arrived at a net valuation for

England in 1749 of exactly 1,000 millions, as follows:—

	Mlns.
Cash Stock	30
Personal Stock	600
Land Stock	370
Total	1,000

Moreover, correcting Sir William Petty and Davenant, he gives the following estimates for 1600, 1660, 1688:—

	1600.	1660.	1688.
	Mlns.	Mlns.	Mlns.
Cash Stock	$6\frac{1}{2}$	14	$18\frac{1}{2}$
Personal Stock	130	280	370
Land Stock	80	173	228
	$216\frac{1}{2}$	467	$616\frac{1}{2}$

Finally, warming with his subject, and working on an assumed cash stock, which is a hypothesis based upon a hypothesis, he winds up with a valuation of England under the three heads stated for each year from 1600 down to 1748, ending with the round figure of 1,000 millions!

This is a most curious essay altogether, and of a kind to bring all such essays into disrepute.

The obvious criticism is that no exact proportion between cash and personal property can be stated; that the proportion must have been constantly varying; and that the method by which the proportion of 20 is arrived at is the loosest observation of individual habits in the matter. What is just as fatal is that the amount of cash which the writer confidently puts at £30,000,000, could never be known with the exactness necessary to base such a calculation upon, while the method which he follows, that of an assumed annual increment based upon Davenant's examination of the Mint reports, import and export statistics, &c., was most fallacious. The essay is altogether most curious.

It need hardly be added that the slightest attempt to give the items of the £600,000,000 of personal stock, which. Mr. Hooke states, would have exhibited the fallacy of the whole proceeding. The value of cattle with the numbers and current prices; the value of shipping: the value of furniture; the value of goods in trade which can hardly exceed the annual produce of the country—must always constitute the main items in such a valuation; and even when so good a plan as the metod of the Income Tax returns is available, these main items must be thought of, much more in the case of such a guess upon a guess as that of the present writer. It is interesting to find that the mode of valuing national capital in the air, as it were, and without reference to data which is not altogether unknown at the present day, was introduced so long ago in a way to demonstrate its folly.

Almost the only solid piece of fact I can find in this pretentious pamphlet is the statement that the rental of England was then 20 millions sterling, based on the computation that the Land Tax yield of two millions was only a tenth of the actual rental, though nominally assessed at 4s. per £, which is very much the same statement as that of Sir Matthew Decker. This rental, Mr. Hooke suggests, should be capitalised at $18\frac{1}{2}$ years' purchase. He makes no suggestion as to the difference between houses and lands.

The third publication I have to notice is called "A

General View of England from the Year 1600 to 1762, in a letter to A.M.L.C.D. by M.V.D.M.;" and is the translation published in 1766 of a French book published in 1762. The translator states in his preface that the author "is (upon pretty sure grounds) supposed to be a French gentleman, who, several years ago, resided for some time in England, and who, within these last ten years, was at the head of the finances of France. During his residence here he was extremely assiduous in obtaining all the information he could procure with regard to the constitution, laws, finances, tillage, manners, and commerce of this kingdom." The translator then speaks in the highest terms of the judiciousness and accuracy of the writer, which must be obvious, I think, to all who read him. It is enough to show that the estimate of 20 millions as about the rental of England in the middle of last century was based upon a real study of data, and was not a guess; and that the best writers who gave their minds to these subjects were well aware what they were doing. Every statement is here examined and questioned, and compared with similar facts in France.

What we find as most important for the present purpose is the criticism of Sir Matthew Decker's and Hooke's estimate of a rental of 20 millions sterling. The writer, for the purpose he had in view, required to make a distinction between land and houses, which compelled him to recognise that houses were assessed less in proportion to the actual rental than lands, although not so much less in proportion to their selling value, which was less in proportion to income than that of land*. Altogether his general view is

* "A General View of England," p. 36.

that the land rental of England is 385 million livres, or £15,500,000, and of houses 95 million livres, or about $4\frac{1}{2}$ millions. He states incidentally, however, that the capital value of land is about 22 years' purchase, against 12 years' purchase for houses only, at which rate lands would come out as worth about 340 millions and houses about 45 millions—total 385 millions; as compared with the above estimate of 360 millions, taking the rental at 18 years' purchase only, and Mr. Hooke's estimate of 370 millions, taking the rental at $18\frac{1}{2}$ years' purchase. On this basis, and following the same mode of dealing with the stock as that followed by Sir William Petty and Gregory King, it would still be impossible to place the valuation of England alone at the middle of last century on any basis which can properly compare with those we have been making for the present time at much more than £500 millions.

There is one point noticed by the latter writer,* and I think by other writers in their books which I have been reading, which deserves a passing notice. This is that a considerable part of the National Debt of England was at that time held by foreigners. The estimates are that a third of the debt was so held. Whether any other foreign capital was lent to England does not appear, but not impossibly, looking at the amount of English debt held abroad, some was so lent. England as an indebted country, then, if an exact statement could have been made, should have had something deducted from the valuations above made to show its exact position, which is the very opposite of what must be done now. But the amounts are too small, and the whole estimates too rough, to

* See p. 160.

make it worth while to attempt any rectification beyond calling attention to the fact.

Another point for which the present writer may be used is his references to the resources of Scotland and Ireland. Of Scotland he does not think much; but Ireland he speaks of as a serious quantity, its general position, he thinks, being much like that of England before the Revolution. This last statement, however, is based mainly upon the national expenditure of Ireland, which is stated to be £2,000,000, and there are no details such as would enable us to give a contemporary valuation of Scotland and Ireland for comparison with the present time.

The next statement to be noticed is that of Mr. Pulteney, in a pamphlet written in 1779, about the time of the American war, entitled, "Considerations on the Present State of Public Affairs and the Means of Raising the Necessary Supplies." Mr. Pulteney is referred to frequently as having made a valuation of the aggregate national wealth, but it is evident that whatever value attaches to Mr. Pulteney's remarks he made no valuation in the nature of the valuations already referred to, or of a kind which can properly be compared with those of the present day. His main plan is to state the rental of land in Great Britain at 20 millions, to assume that the farmers have an equal net income out of it, and then to multiply the net produce of land thus arrived at by 25, assumed to be the number of years' purchase applicable. In this way a sum of one thousand millions is arrived at for land alone, "without taking in other property to an immense amount which equally constitutes national wealth." Another plan suggested by Mr Pulteney is to take the average income per head of the people of Great Britain, which is estimated at £7 10s. for a total population of 7,000,000 (apparently a very low estimate of population) by which he arrives at a total of $52\frac{1}{2}$ millions as the income of the people, and thence reckoning the stock or fund from which this revenue is derived to produce 5 per cent. he calculates the fund itself at 1,050 millions. It is evident from these statements that they are not calculations of national wealth properly comparable with those already used for the 17th century or with those of the present time. By such methods the rental of land in the United Kingdom in 1885 would be capitalised at no less a sum than 3,250 millions, and the income of the people of the United Kingdom, at about 1,300 millions, would indicate a capital of 26 thousand millions!

Mr. Pulteney's distinct statement, however, as to the land rental of Great Britain at the time he wrote being about 20 millions, appears to be consistent with the statements of Petty, Davenant, Decker, and others already noticed, and gives an intermediate figure between their estimates of rental and the much larger figures twenty or thirty years later, with which we shall presently have to deal. His estimate of population, however, is altogether too low, as already glanced at, and there are not sufficient data in what he states from which to make up a contemporary estimate of wealth at the time he writes, viz.: 1779. It seems tolerably certain that there must have been considerable advance between 1750 and 1780, population increasing, commerce increasing, and more than one contemporary writer, speaking of a great rise of rents in many parts of the country owing to continued enclosures and continued progress in the art of agriculture. There is, however, no contemporary estimate of national wealth, such as is supposed to have been made, but was not, in fact, made by Mr. Pulteney.

We come, then, to the time of the great wars at the end of last and the beginning of the present century, when the pressure of a great struggle for existence compelled a discussion of the national resources as a practical question, and the instrument of the Income Tax at once supplied the means, and was in part the result, of such estimates.

Here we find a writer, Mr. Beeke, *apropos* of Mr. Pitt's scheme of an Income Tax, discussing fully both national income and national capital, and giving detailed estimates which there is no difficulty in comparing with previous estimates, and with those of the present time.* Mr. Beeke deals ostensibly with income mainly, but the examination involves questions as to capital as well, and finally the author states, in a postscript, that he had made notes specially as to capital, which he completes and reproduces. This postscript I have extracted, and put in the appendix (see Appendix IV.)

It will be apparent at a glance from this postscript that the author's work is very nearly on all fours with the method which I have used at the present time, the principal differences being that he includes the amount of the debt as part of the capital of the country, which I have consistently excluded, and that he capitalises that part of the income of the country permanently applied to the annual expenditure of the Government and the payment of interest on the

* Observations on the Produce of the Income Tax, &c. By the Rev. H. Beeke, B.D. A New and Corrected Edition. London: J. Wright, Piccadilly. 1800.

National Debt. His estimate of 2,300 millions, therefore, as the national capital would fall to be reduced by the item of 300 millions for the debt, and 250 millions for the capitalisation of the income of the nation applied to Government expenditure and debt interest, leaving a sum of 1,750 millions as an estimate of national capital for Great Britain in 1800 approximately on all fours with the estimates which I have lately made. The items of this sum are as follows, and, for convenience' sake, I have taken the liberty of picking out from Mr. Beeke's text corresponding estimates of income from capital, and the approximate number of years purchase he must have reckoned* :—

Summary of Mr. Beeke's Estimates of Income and Capital, 1800.

	Income.	Years Purch'se (*about*)	Capital.
	Mlns.	Years.	Mlns.
Lands	£24.0	30	£720
Tithes	2.5	30	75
Houses	11.5	18	200
Mines, Canals, Timber, Tolls, &c. ...	5	20	100
Farming Capital	17½	7	125
Home Trade	18	6½	120
Foreign Trade and Shipping	10	8	80
Foreign Possessions	4†	...	...
	92½	...	1,420
Waste Lands			30
Household Furniture			160
Plate, Jewels, &c.			50
Specie			40
			1,700
Shipping, Arsenals, &c.			15
Provincial and Municipal Buildings, &c.			25
Grand Total			1,740

* It will be seen that I have not taken the precise figures in Mr. Beeke's Table on p. 136 of his pamphlet, but that various corrections are made, which I have done after carefully perusing his text.

† I have been unable to identify this item, which appears in Mr. Beeke's Income Table, p. 136, with any item in the Capital Table in his postscript.

The figures in this summary as to income and number of years' purchase must of course be taken subject to the observation that they are not placed by Mr. Beeke himself alongside his capital figures, while to some extent I have been obliged to estimate them because the first four items are not given at all by Mr. Beeke for Great Britain but are given by him for England and Wales only, with an addition in the gross for Scotland. As regards land, however, the remarks of Mr. Beeke fully justify what is done, and I think in other cases there is also sufficient warrant. The most tantalising item of all is that of Foreign Possessions which appears in the income table, but not explicitly in that of capital; but it may perhaps be considered as properly belonging to foreign trade and shipping.

So far as I can judge, Mr. Beeke's figures are not extravagant. His figure of 30 years' purchase for land might be thought so, but the income he deals with, it is found on examination, is a net income, and the gross rental of land in Great Britain was considered by him to be nearly 30 millions. This mode of dealing with the income may have been partly his justification for capitalising that part of the income of the nation applied to national expenditure—the land tax, for instance, being in this way treated as a rent charge belonging to the State, which might properly be capitalised. This, however, would raise the question whether all the income is not capitalised at too high a rate by Mr. Beeke's method, 30 years' purchase being apparently too high for land in his time if taken upon the gross rental. There is no need, however, to go into minute criticism on such points. The principal objection I would make to the figures would be that furniture, plate, &c., and specie, are, together, taken rather too high. The value of houses comes out as 200 millions only, but furniture alone is 160 millions, with plate, &c., 50 millions, and specie 40 millions more. The furniture and contents of houses, altogether, I have not ventured to put at more than half the capital value. I am making these remarks, however, in the absence of all details on this head, which do not come into Mr. Beeke's paper on income, although it is evident from his postscript that he probably had notes on this subject. In all other respects, however, Mr. Beeke is moderate. There is no reason that I can see why his estimates should not be made use of as good contemporary estimates, properly comparable with earlier and later estimates, at least after the qualifications above introduced.

Comparing them with earlier estimates, they show an enormous advance. Deducting about an eighth on account of Scotland being included, a sum of 1,500 millions is left, as compared with a little over 300 millions at the time of Gregory King, and between 500 and 600 millions half-a-century later. Per head of population, the rise is from about £60 per head in Gregory King's time to about £140 in the year 1800; and the greater part of this advance both in amount and per head must have been in the latter half of the 18th century.

Astonishing as the increase is, all the evidence seems to show that while part of the improvement may have been owing to that remarkable rise of prices which commenced between 1780 and 1790, yet a very large part indeed must have been an increase of things and not of money values merely. Mr. Becke himself contends that up to the date he wrote, notwithstanding the war, the capital of the country in things had been increasing rapidly; that shipping had been increasing rapidly; and imports and exports, measured by things, had also been increasing in the same way as the shipping; and that increase in well-being and population in a most striking degree had been going on simultaneously. The book of Mr. Chalmers to which I have already referred, may also be noticed in the same connection, besides not a few other authors to the same effect. The matter is put by Mr. Vansittart in a very striking way in one of the war pamphlets, written in 1794,* in a passage which I venture to quote:—

"It is clear that whatever sums any Government may levy upon its subjects, if the income of the nation, after defraying those sums, furnishes a surplus to be added to its productive capital, unless its expenses are increased in proportion to the new income furnished by this additional capital, a still larger surplus will remain at the next period of computation; this will again be added to the capital, and as long as these accumulations continue the wealth of the nation will increase in a proportion perpetually accelerated. It is impossible to estimate with precision the progress of national riches, as they arise from the aggregate savings of all the individuals in the State; but it is not difficult, by many obvious circumstances, to discern in which of any two periods of time it has been most rapid. If there have been extraordinary sums expended upon works of public utility; if harbours, bridges, high roads, and inland navigations have been improved, and multiplied; if numerous buildings have suddenly arisen; if cultivation has extended over wastes; if shipping has increased in a manner more remarkable at one period than the other—no one can hesitate in deciding in which the national capital, and consequently the public power and prosperity, has most rapidly augmented. It will hardly be denied that all these signs of eminent felicity exist in the nation beyond all former example, but some other circumstances must be taken into consideration to give an adequate idea of the magnitude of its advancement. If, in addition to the vast sums which have been employed in the improvements I have mentioned, a

* Reflections, &c. by N. Vansittart. A New Edition. London: Stockdale, 1794

great capital has been absorbed into the vortex of the National Debt, it will show the extent of these resources of public industry and economy which have at once supplied the one and provided for the other. In this point of view they cannot fail to excite our astonishment. Between the years 1776 and 1786 £115,190,000 were added to the National Debt, yet so completely has the general wealth kept pace with so vast an increase that the share possessed by foreigners in our funds is understood to be much less than in former times, when their extent was comparatively trifling. An addition of £4,864,000 was, in consequence, made in the same time to the annual interest and charge of the debt, and during the late peace many occasional expenses of a large amount were discharged,* while the peace establishment was more considerable than at any former period. Yet the taxes necessary to furnish such extraordinary payments have not diminished the comforts of the people, or injured any branch of their industry. On the contrary, it is certain that in both these respects a great improvement has taken place."—*Extract from Vansittart's "Reflections on the Propriety of an Immediate Conclusion of Peace." London, 1794, pp. 122-7.*

Such was the contemporary belief in 1800 as to the recent progress. Whatever numbers and whatever classes failed to benefit by the growth of income and wealth in the latter part of the 18th century, a vast increase of aggregate income and wealth did undoubtedly take place, of which one proof among others is furnished by comparing the estimates of wealth on similar bases made at the beginning and end of the period, and allowing for a mere rise of prices. I should doubt whether the additions for the rise of prices, comparing 1700 with 1800, ought to be more than 50 per cent. upon the figures of the former period, so that the comparison would be between about 500 millions in the former and 1,500 millions in the later period, or from about £90 to £170 per head, still leaving an enormous advance to

* In addition to the increased charges of the National Debt, many large sums were raised during the late peace for purposes of a temporary nature, particularly Debentures granted to the American Loyalists, £1,991,000.

be marked. Whatever may be the exact corrections necessary, the broad result is undeniable.

Before passing from Mr. Beeke's figures I should like to mention that many of his calculations were fully justified by the results of the Income Tax. The total of all the schedules in 1803 for Great Britain was £115,351,000, which compares with Mr. Beeke's estimate of about £90,000,000 net, excluding certain trade items. Owing to the Income Tax Returns sometimes only dealing with net income instead of the gross as well, and the like causes, exact comparisons all the way through between Mr. Beeke and the first Income Tax Schedule are difficult; but I am satisfied that Mr. Beeke's calculations were so good that we may practically accept his valuation of national wealth as upon an Income Tax basis. His work in all is extremely good. As regards Schedule A in particular, the gross assessments in the Income Tax were in 1803 for Great Britain £38,691,000, which would include lands, houses, tithes, mines, and other items, while the total of Schedule B was £24,279,000, not far short of Mr. Beeke's figure for lands only. The total of £35,000,000 for trades and professions agrees fairly well with Mr. Beeke's estimate of income from home and foreign trade, allowing for differences in arrangement and classification between his method and that of the Income Tax Schedules.

I need not compare Mr. Beeke's figures in detail with the more recent valuations which have been made. It will be sufficient to say that the increase apparently shown from his time to the present would be added to and not diminished by bringing in the question of prices. In any case it may be expedient to look first at one or two valuations for the earlier part of the present century.

One of these is a valuation for about the year 1812, the height of the war, by Mr. Colquhoun, who, like Mr. Chalmers, was, I believe an officer of the Board of Trade, and who at any rate speaks of himself as an official person. Mr. Colquhoun who gives a valuation of income, or, as he speaks of it, production, as well as of capital, is most elaborate and detailed, while he gives figures for every British dependency as well as for the United Kingdom itself. His work is spoken of with a good deal of disapproval by Mr. McCulloch, as has already been noticed, and many of his details are no doubt somewhat fanciful, while the work is also open to further criticism as not recognising sufficiently the special objects of such investigations and the necessary unsuitability of the figures for general purposes owing to the inherent difficulty of the data. For the present purpose, however, and comparing Mr. Colquhoun's results with those of Mr. Beeke, allowing for the growth of population and income tax in the interval, Mr. Colquhoun's estimate is obviously not so wide of the mark for the time of which he wrote that it cannot be utilised for comparison with earlier and later figures. This is especially the case as regards the valuations of capital with which we are more immediately concerned.

The following is a summary of Mr. Colquhoun's valuations of capital. (See p. 103) :—

	£
England	1,846,900,000
Scotland	281,080,000
Total Great Britain	2,127,980,000
Ireland	563,600,000
Total	2,691,580,000*

* Add dockyards, ships, &c., £45 millions, making a total of £2,736 millions, as on p. 103.

And these figures compare with the above totals of 1,500 millions for England and 1,750 for Great Britain, which are Mr. Beeke's figures, when certain corrections are made as to the debt and other matters. Mr. Colquhoun, in fact, leaves out the debt in his totals, and otherwise so deals with the subject as to place his calculations, as far as the omission and inclusion of items are concerned, very much on all fours with the more recent valuations. It cannot be said, I think, that an increase from 1,500 to 1,846 millions for England between 1800 to 1812, an increase of about 23 per cent., is at all out of the question or extravagant; nor the similar increase for Great Britain from 1,750 to 2,127 millions. Looking at the great growth of business and the rise of prices in the interval, these changes are not out of the question. If Mr. Beeke is near the mark, Mr. Colquhoun cannot be far wrong.

I am disposed to think Mr. Colquhoun's figures for Ireland are too high, but not much, Ireland, however, not coming into Mr. Beeke's valuation. Still, it has to be remembered that Ireland was a much more important part of the United Kingdom, in proportion, at the beginning of the century than it is now, while its agriculture was specially stimulated at the expense of the people of Great Britain by the Corn Laws.

It may be convenient to state here for the sake of comparison the following principal items of Mr. Colquhoun's valuation, altering his arrangement a little so as to make them more easily comparable with other figures.

Mr. Colquhoun's Estimates of Property, 1812.

[In Millions.]

	England.	Great Britain.	United Kingdom.
Lands	750	900	1,200
Tithes	80	80	80
Agricultural Property and Live Stock	143	168	228
Dwelling Houses	300	330	400
Mines and Minerals	68	73	75
Canals, Tolls, and Timber	46	48	50
Manufactured Goods — Home Trade	100	116	140
Foreign Merchandise	33	37	40
British Shipping	20	24	27
Fisheries	3	6½	10
Total	1,543	1,782½	2,250
Waste Lands, &c.	82½	99	132
Household Furniture	130	145	185
Wearing Apparel	16	17½	21
Plate, Jewels, &c.	34	37½	44
Specie	9	11	15
	1,814½	2,092½	2,647
Public Property, as Buildings, &c.	32	35	44
Dockyards, Ships, &c.	...	...	45
Total...	1.846½	2,127½	2.736

Mr. Colquhoun's estimate of income is given in such a way that details cannot be separately stated for England or Great Britain. The general result is as follows :—

Property Created in Great Britain and Ireland in the Year 1812-13

[In millions.]

Agriculture in all its branches	£217
Mines and Minerals, &c.	9
Manufactures	114
Inland Trade	31¼
Foreign Commerce and Shipping	46
Coasting Trade	2
Fisheries, exclusive of Newfoundland	2
Chartered and Private Bankers	3½
Foreign Income Remitted	5
Total	£431

At first sight this seems too high, the figure of agricultural production being especially very large. The error, however, cannot be such as to throw us out much when comparisons are made with distant periods. The Income Tax income of Great Britain about 1812 was 130 millions sterling, and adding about a fourth for Ireland, which seems to have been the calculation of the relative resources of Ireland to those of Great Britain at that time, we get a total of 165 millions. This figure, according to modern experience of the relation of Income Tax income to total income would justify an estimate of such total income at about 350 millions; and assuming, what seems to be the case, according to Mr. Beeke's estimate and other estimates at the time, that the Income Tax income bore a less proportion to the total than it now does, a figure of about 400 millions at least as the national income in 1812, at the high prices then ruling, would not appear to be far off the mark. This would also appear from a comparison with Mr. Beeke's estimate of income, which amounts to 218 millions for Great Britain in 1800. Allowing for the increase of population to 1812, and for rise of prices, &c., in the interval, this total in the latter year would not be far short of 320, and an addition of one-fourth for Ireland would bring the sum up to 400 millions. I think, however, judging by various signs, that Mr. Colquhoun's estimates of income are not, perhaps, so well supported by data as his estimates of capital, and at any rate they are not required for our present purpose. I have only called attention to these points to show that the figures are at least near enough the mark to be available for some distant comparisons.

Shortly after he wrote—viz., about 1820—Mr. Colquhoun's work was considered and discussed by Mr. Joseph Lowe, to whom I have already referred, whose corrected figures I now propose to add to those of Mr Colquhoun. There is the more reason for this, as values were, no doubt, somewhat inflated in 1812, when Mr Colquhoun wrote, and the inflation had died out in 1823, when Mr Lowe wrote.

I extract, then, from Mr. Lowe's work* a statement as to the capital of the country at the time he wrote. (See Appendix v.)

The principal items of this 1822 estimate are :—

	Mlns.
	£
Land under cultivation	1,200
Farming Capital...	200
Dwelling Houses, Warehouses, and Manufactories (Houses)	400
Manufactured Goods	140
British Shipping	20
Other Mercantile and Manufacturing Capital	130
Mines and Minerals	65
Canals, Tolls, and Timber...	45
Total	2,200

Mr. Lowe's figures it will be seen are substantially those of Mr. Colquhoun with a few modifications in detail, and with the omission of those items of unproductive private property, such as furniture, plate, &c., and certain items of public property which I believe Mr. Colquhoun very properly includes. The effect then of Mr. Lowe's corrections generally is that

* See "The Present State of England." By Joseph Lowe. London 1823.

he believes the increase of population between 1812 and 1822, and the increase of things, nearly made up for whatever excess in Mr. Colquhoun's estimates was due to the inflation of prices in 1812. It will be seen, indeed, from the Table in the Appendix that Mr. Lowe himself gives the corrected figure of Mr. Colquhoun for 1812, for comparison with his own in 1822, as 2,350 millions. Substantially Mr. Lowe's figures are thus Mr. Colquhoun's figures, but they imply, it should be understood, real and considerable progress between the two dates—apparently, amounting to about 6½ per cent., or equal to the corrections which Mr. Lowe suggests for the fall in prices in the interval. It is Mr. Lowe's explicit opinion that there was this progress.

About sixteen years after Mr. Lowe, we come upon another valuation by Mr. Pablo de Pebrer, who is described as having written in English, and as being a member of several scientific societies, but of whose book I have only seen a French translation, published in 1839. This book is called "Histoire Financière de l'Empire Britannique," and it contains an elaborate calculation of capital and income based upon Mr. Colquhoun's valuations, on the general plan of adding one-third to them, being less than the increase of population in the interval, which was about 41 per cent. The writer, however, though he follows this general plan, is careful to justify its moderation by reference to many details, while he points out that Mr. Colquhoun was generally moderate according to the prices of the time. The result is not so satisfactory as if the writer had made a wholly independent and new valuation, but *quantum valeat* it may be referred to.

The principal items are :–

Summary of Valuation of the United Kingdom for about the year 1833.
[Pablo de Pebrer's, based on Mr. Colquhoun's].

	England	Great Britain.	U. K.
	£	£	£
Lands	1,000	1,200	1,600
Tithes	106	106	106
Agricultural Property	190	223	302
Houses	400	440	533
Mines and Minerals	91	97	110
Canals, Timber, Railways, &c...	61	63	66
Manufactured Goods...	133	154	186
Foreign Merchandise...	44	49	53
Shipping	26	31	35
Fisheries	4	9	13
Total	2,055	2,372	2,995*
Waste Land	110	132	176
Household Furniture	173	193	246
Wearing Apparel	21	23	27
Plate, Jewellery, &c.	45	49½	58½
Coin, &c.	12	14½	20
Savings Banks	13	13	14½
Chancery Money, &c....	...	...	40
	2,429	2,797	3,576*
Public Property, Buildings, &c.	26	29	35
Dockyards, Arsenals	16	17	23
War Ships, &c.	...	...	46
Total	2,471	2,843	3,690*

Such is a valuation about 1833, believed to be about the mark by an author who has taken some pains, though unfortunately for us he has only in form applied a somewhat mechanical method to a former valuation without making up an entirely new valuation from original materials. The weakest point in the whole is, perhaps, the new figures which the author gives for Savings Banks and Chancery money

* These figures, according to the addition, should be 3,001, 3,586 and 3,680; but the exact figures are copied.

as if these items were on the same footing as coin in circulation, not observing that these moneys being invested must appear under some other head in the general valuation. The amount is too small to make any material difference in the general total, while the item of coin itself to which these items are intended to be supplementary is itself too small, as the reintroduction of specie payments must have caused, I should say, a much greater addition than one-third before 1833, to the coin in circulation in 1812. With all defects, however, M. Pablo de Pebrer's valuation may, perhaps, pass as a contemporary valuation for the period between 1830 and 1840.

Subsequently to the latter date there are Income Tax returns once more to be made use of, and as I have now practically made three valuations based on these returns, viz., for 1865, 1875, and 1885, I may, perhaps, be allowed to leave the history at this point. I shall only point out that the first returns to the renewed Income Tax for 1843 exhibit such an increase as on the whole to confirm M. Pablo de Pebrer for 1833. The assessments to the Income Tax for Great Britain, which were 130 millions in 1812, amounted to 240 millions in 1843—an increase of about 80 per cent. as compared with the increase of 30 per cent., which M. Pablo de Pebrer allows for up to 1833. Adding 80 per cent. to Mr. Colquhoun's estimate of 2,700 millions as the property of 1812, we should get a total of over 4,800 millions as the property of 1843. This figure would be, perhaps, excessive, and it allows for an increase in Ireland equal to what had gone on in Great Britain, which is not likely to have occurred, but a figure of 4,000 millions for the United Kingdom about 1845 would certainly not be over the mark. Some difference might be made in the items, the increase in lands being less, and the increase in other items, such as houses, being more than M. Pablo de Pebrer shows; but all the figures tend to show an enormous advance between the two dates notwithstanding the fall of prices.

None of these figures show much advance in the amount per head as compared with Mr. Beeke's valuation for Great Britain in 1800. This indicates, however, a real advance in wealth, a fall in prices being in progress the whole time from 1812 downwards. The infusion of the population of Ireland, which is convenient for the sake of having a computation for the United Kingdom, also brings down the average a little.

We may attach the more importance, therefore, to the advance shown by the subsequent figures, especially as there is no doubt regarding the very latest, that they are not inflated in any way by prices—that prices generally in 1885 were about as low as at any previous time in the century. If property has increased from about 2,000 millions and £140 per head at the beginning of the century, and from about 4,000 millions, and the same amount per head towards the middle of the century, to no less a figure than 10,000 millions and £270 per head at the present time, then the latest experience is quite unprecedented. On a very much larger scale the experience of the 17th century, when the rental of England increased from 6 to 14 millions; and of the 18th century, in which the capital of England increased from a little over 300 to about 1,500 millions; has been repeated in the 19th century. The increase of capital in the present century has again been nearly five times, and there is no suspicion, such as attaches to the increase in the 18th century, that it is partly due to a mere rise of prices.

A short Table, putting the leading results together, and introducing a comparison per head all through, may be interesting :—

Growth of Capital and Population in England and the United Kingdom since 1600. [In round figures.]

Year.	Population.	Property.	Property per Head.
	Mlns.	Mlns. Stg.	£
1600 (British Merchant, &c.)	$4\frac{1}{2}$	100	22
1680 (Petty.)	$5\frac{1}{2}$	250	46
1690 (Gregory King-Davenant.)	$5\frac{1}{2}$	320	58
1720 (British Merchant.)	$6\frac{1}{2}$	370	57
1750 (Various.)	7	500	71
1800 (Beeke.)	9	1,500	167
GREAT BRITAIN.			
Beeke	11	1,750	160
UNITED KINGDOM.			
1812 (Colquhoun.)	17	2,700	160
1822 (Colquhoun-Lowe.)	21	2,500	120
1833 (Colquhoun-Pablo de Pabrer.)	25	3,600	144
1845 (Income Tax.)	28	4,000	143
1865	30	6,000	200
1875	33	8,500	260
Present time	37	10,000	270

The changes are thus constantly in an upward direction, with the exception of the short period between 1812 and 1822, when allowance had to be made for the fall in prices. No doubt part of the rise, with the exception of that in the present century, may be ascribed to the rise in prices which undoubtedly took place in the first half of the 17th and the latter part of the 18th century, but on the whole there is a vast real advance as well as nominal advance all through. As already remarked, as far as the increase in the present century is concerned, comparing the latest with the earliest date, no part can be ascribed to the rise of prices, since prices are now at the lowest level on which they have been since the beginning of the century. There may have been some such rise affecting the valuations of 1865 and 1875, but that rise has since been lost, and comparing the present time with a date like 1812, and perhaps 1800, there is undoubtedly a fall of prices.

It is interesting to observe also the variations in the amounts of some of the principal items of property and their proportions to the total. I need only show the two items, land and houses, and at one or two of the dates only :—

Summary Showing the Growth of Lands and Houses and their Proportion to Total Property.

	Land.		Houses.	
	Amount. (In mlns. stg.)	Proportion Per Cent. of Total.	Amount. (In mlns. stg.)	Proportion Per Cent. of Total.
	England.			
1690 ... ... (Gregory King.)	180	60	45	15
1800 ... ... (Beeke.)	600	40	180	15
	United Kingdom.			
1812 ... ... (Colquhoun.)	1,200	44	400	15
1865	1,864	30	1,031	17
1875	2,007	24	1,420	17
1885	1,691	17	1,927	19

Thus, lands, from constituting at the beginning of the period 60 per cent. of the property of the country, and while forming as late as 1865 about 30 per cent. of the property, do not now constitute 20 per cent. of the total, there having also been in the most recent years an absolute decrease in amount, while other capital is increasing. Houses, on the other hand, maintain a rather increasing proportion of a total property, which is itself constantly increasing in amount: and in the last period of all this tendency has been accentuated till houses—buildings—have come to constitute a fifth part of the total property of the country. Changes like this have undoubtedly been in progress. The proportion of individual property held in land has been steadily diminishing, other property increasing by leaps and bounds, while land, though participating in the unearned increment, has improved more slowly, and of late years has diminished absolutely in value, owing to the unearned increment having for the moment disappeared under the influence of foreign competition. At the same time the progress of civilisation is steadily marked by the growth and improvement of buildings, which increase not only with population and the increase of property generally, but in even a greater ratio.

This is hardly the place to introduce general economic remarks, or deduce special lessons from the figures, especially as I reserve a chapter for the discussion of the uses to which such figures may be put. I should like, however, just to say a word in passing, on a question which will perhaps occur to many.—How do these figures bear on the problem of the improvement or detoriation of the masses from period to period? I think it has been sufficiently demonstrated, that in the last fifty years there has been progress all round; in recent years, as I need not remind you, not so much at the top as lower down; but it is alleged that just fifty years ago the masses had sustained a special deterioration. Sometime ago on the strength of mortality and other statistics I put in a *caveat* against this conclusion, and on the strength of the figures here given I am disposed to strengthen this *caveat*. All through it seems to me there must have been improvement all round. The necessary effect of a continuous increase of capital is dispersal. If the land monopoly had been constantly absorbing more and more of the national earnings through unearned increment, the conclusion might have been different, but the unearned increment is plainly *un peu de chose*. What all the figures point to is that there has been a steady levelling up among the masses for several centuries; that this improvement largely takes the shape of constant additions to the lower middle class and the upper artisan class; and that there is a residuum which does not improve much, and hardly, by comparison, seems to improve at all, but this residuum certainly diminishes in proportion, and probably diminishes in absolute amount, from century to century and from period to period. It would be impossible to set out fully here the facts supporting this view; but as the question may arise on the general figures here exhibited, I desire to anticipate a natural and hasty, but what I believe a most erroneous conclusion inconsistent with many other facts.

Of course other communities throughout the world have progressed in a like manner—the United States even more remarkably. The statement made is not intended to be of a Chauvinist or spread-eagle kind. It is merely to state scientifically in a line how immensely greater in reality are the resources of modern communities than those of their predecessors in a very recent period—to render a little clearer, in fact, the degree of material improvement in modern times.

CHAPTER VI.

ACCUMULATIONS OF CAPITAL IN FOREIGN COUNTRIES.

I PROPOSE now to consider for a little the question of the accumulations of capital in other countries. What estimates on the subject have been made by our principal neighbours? and how far are the results arrived at comparable with our own?

The United States is above all the foreign country, if it is correct to speak of it as a foreign country at all, in which we are most interested, while it is also a country in which for a considerable period, attempts at a national valuation have been made. Let us look, then, first at what is done in the United States.

There is first of all in the United States an official valuation. The principal source of revenue in the States and localities is a tax upon property, which must by the terms of the constitution itself be equal upon all property. Hence every State has an official valuation. But, like attempts to tax property elsewhere, this provision has failed. Either property escapes taxation by being greatly undervalued, or it escapes assessment altogether, the property called personal, as distinguished from real, it need hardly be said, being the kind which escapes. In consequence, at every census since 1850, the officers entrusted with the duty have endeavoured to arrive at a true valuation, as well as to bring together the figures of the assessment. The method and details of this true valuation are not, as far as I have observed, fully explained in the census reports, but the nature of the attempt is at any rate partially indicated. That there is a great difference between the assessment and the "true valuation" goes without saying. The differences since 1850 have been as follows :—

—	Assessment. Mln. Dollars.	True Valuation. Mln. Dollars.	Proportion of Assessment to True Valuation %
	$	$	
1860	12,083	16,159	75.50
1870	14.187	30.068	47.23
1880	16,902	43,642	38.73

—showing an increasing discrepancy between the assessment and the true valuation, which may be largely ascribed, there is no doubt, to the vast growth of personal property in recent years.

Practically also for the present purpose we must discard the official assessment and look at the true valuation only, as being at any rate an attempt to arrive at a figure resembling the valuations which we have been using as a means of computing the accumulations of capital.

The true valuation of 1880, then, is given in the census of that year (see vol. 7, pp. 11, *et seq*) as follows :—

"True" Valuation of the United States according to the Census of 1880.

	Miln Dollars.	Milns Stlg.
	$	£
Farms	10.197	2,039·4
Residence and business real estate	9,881	1,976·2
Railroad and equipment	5,536	1,107·2
Telegraphs, shipping, and canals	419	83·8
Live stock, farming tools, and machinery ...	2,406	481·2
Household furniture, painting, books, clothing, jewellery, household supplies, and food, fuel, &c.	5,000	1,000·0
Mines, petroleum wells, and quarries, with one-half the annual product estimated as amount on hand	781	156·2
Three fourths of the annual products of agriculture and manufactures, and of the imports of foreign goods estimated as the average supply on hand...	6,160	1,232·0
All real estate exempt from taxation	2,000	400·0
Specie...	612	122·4
Miscellaneous—including tools of mechanics ...	650	130·0
Total	43,642	8,728·4

And comparing this broadly with the similar valuation for the United Kingdom above given, which is for five years later, or the similar valuation for the United Kingdom for 1875, which is for five years earlier, it is easy to see that the United States' figures are at least within sight of the mark. In 1880 the United States had a population of 51 millions, as compared with 37 millions in the United Kingdom in 1885, and although the United States might be assumed not to have the manufacturing capital or the large investments of the people of the United Kingdom, yet their agricultural and general wealth could not but be enormous, and might easily reach in 1880 the total of the United Kingdom in 1875.

In detail also there is nothing improbable in the particular items. Thus the valuation of "farms" corresponds very closely with the item of lands in the statement for the United Kingdom, which seems by no means unreasonable considering that the cultivated area of the United States in 1880 amounted to over 160,000,000 acres, or more than three times the cultivated area of the United Kingdom. The relation of capital value to income is not explained in the United States returns, but making all allowance for the inferiority of the cultivation and the smaller saleable value of the same net income in the United States compared with the United Kingdom, the value of farms in the United States must be enormous.

The next item of "residence and business real estate" appears to come into comparison with the item of Houses, &c., in the Income Tax returns, and is more than the similar English valuation for 1875, and just about the English total for 1885. Always remembering, however, the enormously greater population of the United States compared with that of the United Kingdom, the figure cannot but be considered as at least an approximate one.

The next item of "railroads and equipment" is supported fairly by the railway returns of the United States, though the figure seems a little too high as compared with what a valuation by net income capitalised at so many years' purchase would have produced. The net income of the United States railways in 1880, according to the United States Statistical Abstract, was about £42.000,000, and to justify a valuation of £1,100,000 this sum would have to be capitalised at 26 years' purchase, which seems above the rate at which railway income sells for, or rather sold for in 1880, in the United States. Still the figure cannot be said to be excessive or unreasonable.

The next item, that of "live stock, farming tools, and machinery," amounting to £480,000,000, seems very large. It does not include the whole farming capital, much less the whole capital corresponding to Schedule B in England, and it points to a much larger figure for agricultural capital in the United States than anything I have ventured to assign for England. But we should look for some such result. The agricultural business of the United States is enormous compared with that of England, and even at much smaller values for every kind of stock and produce, the valuation runs into very big figures.

The next item, that of "household furniture," is expressly defended by Mr. Gannett, of the United States Census, who is responsible for it, as having been very carefully made, though the process by which it is built up, as is the case with the other items, is not shown in detail. It is interesting to note that, however it may be arrived at, it corresponds very closely to half the valuation of the item of "houses," which we have assumed it would be a safe rule to follow in the United Kingdom.

The item of mines, &c., like the same item in the United Kingdom, is comparatively small, notwithstanding the importance attached to mines.

The next large item, that of "Three-fourths of annual products of agriculture and manufactures and of the imports of foreign goods estimated at the average supply on hand," has nothing exactly corresponding in the English method, but with the addition of two other items, "specie" and "miscellaneous," may be assumed to correspond fairly well with the items of Other Public Companies, Trades and Professions, Trades and Professions Omitted, and Income of Non-Income Tax classes derived from capital in the United Kingdom valuations, with this difference only, that perhaps a fifth of the American valuation under this head is really agricultural capital. American figures on this head for 1880 would thus compare with similar figures for the United Kingdom in 1885:—

American Figures.	Mlns Stg.
Three-fourths of Annual Products, &c.	£1,232
Specie	123
Miscellaneous	130
	£1,485
Deduct—	
One-fifth assumed to be Agricultural Capital	297
Total	£1,188
English Figures.	
Other Public Companies	£696
Trades and Professions in Income Tax	541
Do. do. omitted	123
Capital of Income and Non-Income Tax Classes derived from Capital	335
Total	£1,694

Perhaps one or two other items ought to go into the valuation of the United Kingdom for comparison, but I doubt if anything very considerable. I cannot help thinking, then, that on this head there is either some under-valuation in the English returns, or some over-valuation in the United States. A large part of the special wealth of England is in its stocks of goods—the circulating capital of its shops and warehouses. The population engaged in these branches must be much larger than the similar population in the United States. It is hardly possible that the corresponding capital can be so little more. I am disposed to think that the English valuation is rather under the mark, but the point is not very material.

The items in which the English valuation differs most from the American is in the amount of capital invested abroad. To this there is, of course, nothing corresponding in the American return, although it amounts to £1,300 millions in the English valuation. There is, also, no valuation of national property in the United States returns.

On the whole, then, there seems nothing unreasonable in the American valuation so as to make it unsuitable for comparison with the English valuation, the object of both being to state a figure representing the exchangeable value of property belonging to the people at current rates. The process by which the American figures are built up is not shown in detail as the similar process is in England ; but there are other modes of checking the main items, as we have seen. So long, therefore, as there is no attempt at reasoning too finely, and the comparisons are limited to such objects as showing the comparative growth of capital proportionately to former amounts, the United States figures may be taken to be as sufficiently on all fours with those of the United Kingdom for the purpose.

There is only one important qualification to be made, I think. This is, that the United States being a country where a large part of the capital in use is owned abroad, a deduction from the capital brought out by the above method of calculation ought to be made so as to exhibit the net capital of the community of the United States. Not only should the valuation of the United Kingdom differ from that of the United States, by including an item for capital invested abroad, but there should be the further difference that the valuation of the United States should exhibit a deduction in respect of foreign capital invested in the United States.

How much should that deduction be? If there were no borrowing or lending transactions going on, and no remittances from the United States to other countries to pay the expenses of Americans travelling or residing abroad, the interest of the indebtedness ought to be shown by the excess of exports over imports; but corrections must, of course, be made. I am inclined to submit the following account as for about the year 1880:—

Statement showing the sum approximately due Annually by the Community of the United States in respect of Foreign Capital invested in the United States:—

	Mlns.		Mlns.
Dr.	£	Cr.	£
Imports—Average 1879-81	122	Exports—Average 1879-81	170
Under valuation of ditto in official returns	20		
Amount annually due for Americans travelling or residing abroad	20		
Balance	8		
	170		170
		Balance brought down ...	8
		Add estimated annual borrowing or sales of securities in Europe on American account ...	42
		Total	50

Of course an account like this is only a rough guess at the reality, and everything it will be observed turns upon the point as to the amount of the annual borrowing in Europe on American account, which must be very large, and but for which the excess of exports now shown in the American returns would be even larger than it is. At twenty years' purchase the 50 millions of estimated annual indebtedness of the American community on account of foreign capital invested would come to 1,000 millions sterling, which is a serious deduction from the valuation of capital above stated. Instead of having been £8,700,000,000 in 1880 according to the above statement, it must have been under £8,000,000,000. Some deduction must be made.

It need hardly be added, however, that the valuation being for 1880, and the growth of population in the United States being enormously rapid, the capital figures for 1885, if we had been able to get them, so as to show a figure properly comparable with the valuation of the United Kingdom, would have been nearly as much as, if not more than, those of the United Kingdom, even making a deduction, as above suggested, for foreign capital invested in the United States.

The growth of capital in the United States may now be shown. For this purpose I extract from my former essay, with the addition of the above figures for 1880, a statement of the comparative growth of capital in the United States according to the "true valuation" since 1850, and with an estimate on a similar basis for the census periods before that made by the United States census authorities. The figures before 1870, it should be explained, include the valuation of slaves in the Southern States; and there are, of course, other minor discrepancies, in consequence of changes, of which there is no record, in the method of valuation, but the real growth must evidently have been so large that minor discrepancies are lost. As explained in a note, also, the figures for 1870 are subject to a deduction of 15 per cent., or thereabouts, so as to reduce them to a gold valuation; and it will, of course, be understood that all the figures are subject to further deduction on account of foreign capital invested in the United States. (See p. 125.)

Deducting for foreign capital invested in the United States the figures would still be very large.

This statement may be compared with the similar statement for the United Kingdom (*supra* p. 110). The growth in the United States absolutely is greater than in the United Kingdom, but the wealth of the latter community per head is still the larger.

It must be kept in mind, of course, that the comparison is here of capital and not of income. Nothing would, in fact, be more interesting than to show the different relation of income to capital in different countries. It does not follow that because one community is inferior to another in the exchangeable value of its property either in total amount or per head, therefore everything has been said as to their relative resources. The differences in the stage of economic development they have reached, the potentialities as well as the actualities of their condition, the earning power as distinguished from the exchangeable value of the property, are all matters to be considered. The property test is useful as far as it goes, but it is not the only test. And we can all see that these points must be specially kept in mind with regard to the United States. A new country so full of un-

[Continued on p. 126.]

Statement showing the Population and Wealth of the United States [illegible] decades from 1790 to 1880; Decennial percentage Increase of Population; Decennial percentage of Increase of National Wealth; and Average Property to each person. (See table, p. 186 of "Essays in Finance," 1st series):—

Year.	Population.	Wealth.	Decennial Percentage Increase.		Average Property to each person.
			Population.	Wealth.	
	Mlns.	Miln. dollars.			$
1790 ...	3·9	$750 (estimated)	...	...	187·00
1800 ...	5·3	1,072 ,,	35·02	43·0	202·13
1810 ...	7·2	1,500 ,,	36·43	39·0	207·20
1820 ...	9·6	1,882 ,,	33·13	25·4	195·00
1830 ...	12·8	2,653 ,,	33·49	41·0	206·00
1840 ...	17·0	3,764 (official)	32·67	41·7	220·00
1850 ...	23·2	7,136 ,,	35·87	89·6	307·67
1860 ...	31·5	16,159 ,,	35·59	126·42	510·00
1870 ...	38·5	30,069 ,,	22·00	86·13	776·96*
1880 ...	50·1	43,642 ,,	30·13	45·47	870·00

* Allowance ought to be made here for the depreciation of the dollar between 1860 and 1870. In the introduction to Vol. VII. of the Tenth Census of the United States, p. 8, it is also stated that between 1860 and 1870, allowance ought also to be made for the fact that slave property is included in the former census and had disappeared in the latter. Mr. Gannett suggests that, including slave property in 1860, as well as in 1870, and allowing for the depreciation of the dollar in 1870, *i.e.*, reducing the values at that date to gold values, the more approximately correct figures of the true valuation for 1860 and 1870 would be :—

1860	9,253,000,000 dollars
1870	23,973,000,000 ,,

I have thought it more convenient, however, to retain the official figures in the text. It brings up to a point, what is said elsewhere, as to the importance of price in these valuations.

developed resources may develope much quicker than another. The comparison one day shows it to be inferior in capital or property to another community; but the next time we look the whole position may be changed.

Let us next turn to France, which, for historical reasons, as well as reasons of neighbourhood, is by far the most interesting country to us,—next, at any rate, to the United States.

Here, we find, computations of national wealth have been made, especially in recent years, as to which we may put the question how far they are comparable with our own.

M. de Foville, whose name is so well known in this country, and whom every statistician must honour greatly for the good work he has done, has investigated the subject so thoroughly as regards France, summing up what has been done by others as well as himself, that one is necessarily spared a great deal of labour in the discussion. If there is any imperfection in our reference, it will be easy for those interested to refer to the various writings of M. de Foville.

It is obvious, then, at the outset, that it would not do to accept any valuation of property for another country, and compare it with the figures above set out for the United Kingdom, and we must now add the United States figures, without looking into the details, and understanding the process by which the account is made up. M. de Foville gives the following list of different estimates in recent years, and although the first is, perhaps, of too old a date to be comparable, yet the others are obviously recent enough, regard being had to the slow growth of population in France, to justify the expectation that they would approximate closer than they do if they were all made on the same basis :—

Estimates of Property in France [*mlns. stg.*] *

Authors.	Date.	Real Property.	Personal Property.	Total.
		£	£	£
M. de Girardin	1853	3,680	1,320	5,000
M. Wolowski	1871	4,800	2,200	7,000
M. C. Duc d'Ayen	1872	4,000	3,800	7,800
M. C. D. Vacher	1878	8,640	1,760	10,400
M. Amelin	1878	5,400	4,200	9,600
M. S. Mony	1881	4,600	4,040	8,640

I need not weary the reader with the details of these estimates, though to the students who wish to understand what statistical method is, I can recommend M. de Foville's criticism and comparison. It is quite plain that, however useful even widely differing estimates may be, if each set of estimates for different years is made up in the same way, for showing the progressive accumulation of capital and the variations in the rate of accumulation, and for similar purposes, yet that such estimates themselves cannot even be compared with each other properly, or with those of other countries, without an understanding as to details and method. I need only mention that in some no distinction is made between incomes from property and incomes from personal exertion, but all are capitalised alike ; whereas in others, agreeing with the plan we have ourselves followed in the United Kingdom, and which appears to be followed in the United States, the idea of property, which is really exchangeable, is steadily kept in mind, and there is no capitalising of income, except there is property to

* M. de Foville : "La France Economique," p. 438.

answer to it. M. de Foville refers to even larger estimates that have been made in France than some of the above, but there is, of course, no need to refer to them.

For all practical purposes I need only use for comparison with our own valuations M. de Foville's own estimates, because they are obviously devised with the same end in view, and have the confirmation to a large extent, as he points out, of partial estimates by M. Maurice Block, another name we must mention with honour in this country, as regards real and personal property at different times in France.

M. de Foville then made the following estimate in 1878, which he supplements by a less detailed estimate for the present time in his recent book, "La France Economique":—

M. de Foville's Estimates of French Property.

1878.*	£	1886.†	£
Real Property, exclusive of Houses	4,000	Real Property, exclusive of Houses	3,200
Houses, &c.	1,000	Houses, &c.	1,600
French Property Abroad	600	French Funds & Foreign Securities	1,200
Gold and Silver	320	Other Moveable Property	2,000
Furniture, Personal Property, Works of Art ...	400		
Agricultural "Material"	160		
Farm Animals and others	200		
Agricultural "Approvisionnement"	200		
Other Commercial Capital	200		
Other Industrial Capital	800		
Marine, Arsenals, &c. ...	120		
Total	£8,000	Total	8,000

The estimate for the present time is much the same in total as for 1878, but the details are generally not comparable. In reality, the 1886 estimate is less than the 1878 estimate, as it includes the amount of the French National Debt not included in the 1878

* *Economiste Francaise*, Jan. 18, 1879. † *La France Economique*, p. 442.

estimate, but that there is ground for a reduction of some sort, or, at any rate, for little or no increase, is justified by M. de Foville on the score of the fall in prices and the consequent fall in value of much real and other property in the interval.

In two respects, it will be observed, the above figures for the present time differ from those employed for the United Kingdom. They include in the valuation of property the amount of the home debt, which is not included in the above valuation for the United Kingdom, and which in France is a larger sum than it is in the United Kingdom, and they do not include the amount of Government and local property, which items are included in the valuation of the United Kingdom. M. de Foville discusses this point; and, making an addition to his figures for the present time, so as to include the property of Government and local authorities, and then deducting the aggregate amount of their debts, he arrives at a sum of about 7,200 millions sterling, which would be properly comparable, as far as I can judge, with the valuation of the United Kingdom.

An examination of the details confirms the *vraisemblance* of these figures for France. By far the most important item, it will be observed, is that of "real property not built upon," answering to the lands in our own returns, and for this figure there are undoubtedly abundant data, the net income and selling value, (the latter through the registration duties on the transfer of property,) being matters of official record. In point of fact, the selling value of real property not built upon in France was officially reckoned by the French Financial Administration in 1882 at 3,663 millions sterling, so that M. de Foville's figure in the above estimate shows a considerable falling off. There are similar means of dealing with the next great item—the house property, which seems to me rather more highly valued than similar property in the valuation of the United Kingdom, if we assume, as I suppose we may, that farm-houses are valued with the land, but still not so highly valued as to make the comparison wholly out of place. As regards others, M. de Foville shows that he is quite alive to all the points to be considered, and it would be out of place to follow him minutely. That the moveable property of the United Kingdom must be enormously greater than in France goes without saying, though perhaps some may think not so great as represented by the figure of about 6,000 millions sterling for the United Kingdom, and less than 3,000 millions for France.

If the valuations of the United Kingdom and of France, in any case, are not properly comparable, the data as regards France are very fully supplied by M. de Foville, and there need be no mystery on the point.

M. de Foville has discussed, with no small ingenuity, a method of ascertaining the amount of property in France from the amounts annually passing by succession, a process to which he has resorted in the absence of income tax figures corresponding to those which we have for England. The conclusion at which he arrives is that the average annual amount of the successions, *plus* about a fourth for successions *inter vivos*, may be multiplied by 36 so as to show the amount of property held in the country—the assumption being that 1-36th part is succeeded to annually either by death or gift, about 1-45th part by death alone. The speculation is a most interesting one, and is based largely upon data of a kind in the possession of the Ministry of Finance, which are either not in the possession of our own Inland Revenue department or are not published by them. Mr. Porter in this country, as I pointed out in my former essay, seemed to arrive at a similar proportion of 1-45th annually passing by death. I should like to see the question followed up more carefully both in this country and in France. Meanwhile it may be observed that if the proportion can be assumed not to vary for considerable periods, as I think may be the case: there is every antecedent probability, looking at the slow change in the rates of mortality or the customs of people regarding inheritance, that it will not vary greatly: then the growth of property passing by succession should indicate the growth of property itself. Succession figures are most useful for our discussion. We can compare the rate of growth of property which we arrive at by successive valuations with the rate of growth indicated by the amounts passing at death.

Looked at in this way there is no doubt that the growth of property in France has been very rapid, as rapid during the present century as in the United Kingdom. The following are the French succession duty figures at ten years' intervals since 1826:—

Successions and Donations inter vivos *annually taxed in France at the undermentioned dates.**

	Successions.	Donations.	Total.
	£ Stg. Mlns.	£ Stg. Mlns.	£ Stg. Mlns.
1826	53·5	18·0	71·5
1835	61·6	20·8	82·4
1845	69·7	28·1	97·8
1855	96·3	29·0	125·3
1865	121·2	34·0	155·2
1875	170·2	42·7	212·9
1885	216·3	40·1	256·4

* *La France Economique*, p. 440.

Allowing for a change in the method of valuing rural property in 1875, these figures show comparatively little progress since that time, apparently confirming M. de Foville's disposition not to swell the totals, but rather to diminish them since he made his estimate in 1878. In the United Kingdom there would equally have been little progress, as far as we can judge, apart from the increase of population. Thus in France, as in the United Kingdom, the progress in money values has not been so great since 1875 as before.

I do not propose to go into the subject of estimates of property in other countries. Students who desire to follow this subject will find references in M. de Foville's papers. The only other countries for which verifiable computation seems to have been made are Belgium and Italy. In the former case the estimate is that of M. Massalski, whose work I have not seen, but who has followed, apparently, the method of M. de Foville—the preferable method in a country which has data like those of France or Belgium or Italy—and who thus arrives at a total of about £1,200 millions ($29\frac{1}{2}$ milliards of francs)—a calculation so far supported by an estimate of £440 millions alone for the value of the real property, land, and houses, which is stated to have the authority of M. Malou, who valued in 1880 lands at £300 millions and houses at £136 millions.* The total of £1,200 millions seems to compare closely with that above given for Scotland, which has a smaller population, but which is probably somewhat richer per

* See De Foville: "La France Economique," p. 446. I have not seen this calculation of M. Malou, but it is not improbable, as M. Malou has made a valuation of £320 millions for the year 1865 or thereabouts.

head. With regard to Italy, we have the advantage of a very elaborate study by M. Pantaleoni, a most able Italian economist, who discusses fully the whole question of valuations of property in different countries in his work, entitled, *Dell 'Ammontare Probabile della Richezza privata in Italia*, published at Rome in 1884. Finally, M. Pantaleoni adopts the method of M. de Foville in calculating from the figures of the succession duty by means of a co-efficient, though he supports the results by direct calculations as to the value of lands and houses. In this way he arrives at a total of £1,920 millions for Italy composed approximately as follows :—*

	Mlns. stg.
	£
Land	1,160
Houses	360
Other property	400
Total...	1,920

I should have thought, at first sight, that such figures were too small for Italy, whose population is three-fourths that of France, but whose wealth, according to this account, is something like 2-7ths only. It is not essential, however, for our present purpose to criticise minutely; M. Pantaleoni has certainly discussed the subject in a proper manner, and I could not go behind his data. That he considers it not inprobable that the private wealth of Italians is much less than that of Frenchmen is a fact of itself to be taken note of. The figures may not be very exact, but some such difference, we may be sure, exists, much else that is known of the economic condition of Italy agreeing with the estimates.

* Pp. 221 et seq.

Still, neither as to Belgium, nor Italy, do I wish to critise in detail, especially in the absence of any figures as to the accumulation of capital which is our special topic. What I wish to point out is that, for those who care to follow up the subject, certain data are accessible in many countries, which would assist in the compilation of useful figures, although the limit of error would necessarily be somewhat wide. The chief items everywhere must be land and houses, and in most cases now railways, the first being relatively more important in almost every other country than it is in England. Limits of the valuation in gross of other items, if land, houses, and railways can be valued, are always capable of being ascertained, even if no exact figure can be stated. But it is absolutely necessary for comparison that the process should be set out in full; that a valuation of capital, as much as possible, should be made on some calulation of income; and that such points as whether a community is a creditor or indebted in respect to other nations should be allowed for.

CHAPTER VII.

THE USE OF NATIONAL VALUATIONS.

In my former essay, and in the introduction to the present essay, the uses to which general valuations of the property of a community, and of the estimates of accumulation of capital derived from them, may be put are briefly indicated. After this long inquiry it may be useful to return to the topic, and explain in some measure how the statistics may be applied.

But first let it be understood, as it cannot be too frequently repeated, that the figures, which can be arrived at by any method, are necessarily not exact. A detailed valuation of each description of property is hardly possible, and would present many difficulties of its own, while it would be subject in any case to the observation that only by a violent hypothesis can the property of a community be valued like that of an indidvidual member of it, seeing that it is not conceivable that it can all be the subject of a sale at a given moment. In actual fact, however, we have to be content with something that falls very far short of such a detailed valuation, and to apply average rates of value to gross quantities either of property or income which are themselves imperfectly ascertained. For certain purposes the results may be good enough, and I believe are good enough; but they are certainly not to be treated as sums in an account definitely ascertained, and compared one with another, without attention to the nature of the data themselves, and the similarity or dissimilarity of the processes by which the results are arrived at.

The uses to which the figures can properly be put, regard being always had to the fact that the data and methods employed are sufficiently alike for the special purpose in hand, appear to be the following:—

1. To measure the accumulation of capital in communities at intervals of some length—not less, perhaps, than ten years—this having been the main object in view in my essay in 1878 on the accumulation of capital, and being perhaps the most important use to which such figures can be put.

2. To compare the income of a community, where estimates of income exist, with its property.

3. To measure the burden of national debts upon different communities.

4. To measure, in conjunction with other factors, such as aggregate income, revenue, and population, the relative strength and resources of different communities.

5. To indicate generally the proportions of the different descriptions of property in a country to the total—how the wealth of a community is composed.

6. To measure the progress of a community from period to period, or the relative progress of two or

more communities, in conjunction with the facts as to progress in income, population, and the like; to apply, in fact, historically and in conjunction with No. 1, the measures used under the above heads 2, 3, 4, and 5 for a comparison at a given moment.

7. To compare the aggregate accumulation in a community with that portion of the accumulation which can be described as free savings, and which is gradually invested through the agency of the Stock Exchange.

8. To throw light on the question of changes in the value of money, which are themselves among the facts to be investigated and allowed for in comparing the valuations of different countries, or the valuations of the same country at different times.

There are, no doubt, other uses to which the figures of national valuations, when judiciously used, can properly be put; but the above, it may be allowed, form a good enough list if it can be shown, as I think it can, that with all their inexactness the figures still supply useful materials for discussion. There is, of course, no reason why such figures should not be used if they are exact enough for the purpose, and if they are the best obtainable.

To take the various heads of comparison in their order, there can be no doubt, to begin with, that it is with reference to the accumulation of capital, and especially for the comparison of such accumulations over different periods, that valuations of property are, perhaps, most useful, and it was for this purpose mainly that the present study has been entered upon. Here, from the nature of the case, whatever roughness there may be in the property valuations themselves, the results arrived at become trustworthy for comparison, provided the same method is followed in the valuations. Of course, the figure of accumulation is itself mainly useful as a comparative figure for comparison with other figures, as we shall notice presently ; but accumulation is so obviously important a matter that it may be given a separate head. The problem whether a community is adding to its possessions or not is of manifest interest.

That the calculation is rough is also no serious drawback to its utility. It is even important to know whether there is progress or not ; and not only can progress or retrogression be shown, but the limit of error is reducible to a narrow percentage. According to a well known rule of statistics, also, the movement may be even more exactly appreciated than the amount of the accumulation at a given period. Suppose the accumulation at two dates to be inexactly stated, owing to the necessary imperfection of the figures by 10 per cent., the intermediate accumulation will also be inexactly stated by an equal percentage. But the proportion of this intermediate accumulation to the total property at a given date, as it is itself only a fraction of the total, need not be inexact by more than a small percentage of that total property. When the figures of valuations of property, therefore, are spoken of as inexact, it should be remembered that the real utility of the figures is not thereby brought into question. The proportion of the accumulation to the property may be shown more exactly than the valuation of the property itself at a given date.

We come next to the use of such valuations for the purpose of comparison with estimates of the income of the communities concerned. Here, again, minute accuracy must be unnecessary, while the utility of the proposed comparison is obvious. The relation between property and income, roughly as the figures may be done, must disclose something as to the economic condition of the communities, and help to render clearer the true idea of that economic condition which might be best derived from other sources. It is obvious, for instance, that the income of the community of the United States is probably much larger in proportion to the property than it is in an older country. The fact that it is a community indebted to other communities instead of being a creditor community is, and is caused by, a material difference in their circumstances. It is because their income is so large, because their natural resources undeveloped or in process of development are so large, that they can afford so well to borrow. Potential is quickly converted into actual capital, and individual members of the community have less need of capital. But the circumstances are likely enough to change rapidly, and even now the different conditions of geographical groups within the greater community of a nation like the United States must present great variety.

Of course, for any such purpose the figures of property valuation can only be used with great discretion, and by avoiding any attempt to reason finely, especially as approximate figures of income are as difficult as approximate figures of property. The conclusions which the figures may point to are illustrative and suggestive; but it is wise, of course, to use them only with a due consideration on independent data of what their real meaning may be.

The next special and obvious use of a property valuation which has been mentioned is to make a comparison between it and the amount of national and local indebtedness. Here, again, there is no question of the appositeness and sufficient accuracy of the figures. We need give only a few illustrations.

Our own National Debt looks enormous, but, after all, it is only about $7\frac{1}{2}$ per cent. of the property of the country, a mere bagatelle, especially taking into account the fact of its being held at home. Reducing the national valuation itself by any conceivable amount, it must still be a bagatelle. It is mostly, in fact, as well as appearance, a charge upon the income of property as distinguished from the income from personal exertion, and it has to be viewed as really a mode of distributing the wealth of the community among individuals, and not as a burden upon taxpayers, who are separate in fact, as well as in name, from the fundholders; but, apart from such views as to the burden of National Debts, the proportion of the debt to the whole wealth of the country in our own case is plainly a small one, and would still be a small one, however much the valuation of the property might conceivably be modified. Even adding the debts of local authorities—about 200 millions in all—the indebtedness of the community to the fundholder is under 10 per cent.

The value of these comparisons is even more clearly seen if we look abroad. In France, it is plain, the national indebtedness is a much more serious affair than it is in England. The national and local debts together in France cannot be put at less than about 1,200 millions sterling—about a sixth part of the property of the community as compared with a proportion of less than a tenth in the United

Kingdom. No doubt in France, as in the United Kingdom, the debt is only a mode of distributing the property of the propertied classes. What they pay as taxpayers they get back as fundholders; but the difference in the two proportions must be felt in France as regards that portion of the debt burden which must be borne by the income from personal exertions as distinguished from the income of property.

In the United States, again, the debt is obviously a bagatelle. It is 300 millions only, or less, as compared with a property of, probably, at the present time, 8,000 or 9,000 millions, deducting what the community owes to foreign countries. Even if we add the indebtedness of State and local authorities, the United States, as a community, is singularly free from the burden of Government debt.

Illustrations could be multiplied without difficulty, but it is easy enough to see that the question of National Debts could hardly be properly treated at all except in the terms of property, and that however widely property may be estimated useful comparisons between its amount and that of the debt may be made.

We have next to deal with the use of such valuations as a rough measure of the relative strength of different communities, along with comparisons of other factors, such as territorial area, population, revenue, principal sources of revenue, and the like. Here there can surely be no doubt of the appositeness and sufficient accuracy of the figures. The comparison of the property of the respective communities in a line, as it were, even if it is somewhat roughly done, shows markedly how two communities may differ in wealth, and, as far as wealth is a measure of strength, qualifies any inferences that might be drawn from a comparison of population alone, or of one or two items of wealth only, or of actual as distinguished from potential revenue. Where the differences are great the value and necessity of the comparison are obvious. If they can be supplemented by comparisons of national income so much the better, and nothing else can supply their place.

We have only to look at the estimates of property for the two chief countries mentioned in the preceding chapter and compare them with similar results for the United Kingdom to perceive how any conclusions as to relative strength from numbers of population and actual revenue alone must be modified.

In population France exceeds the United Kingdom a little; in Imperial revenue a great deal, though in Imperial and local revenue together, not so much. In population, the United States exceeds the United Kingdom enormously; in actual Imperial revenue it falls short a little, though, perhaps, not so as regards Imperial, State, and local revenues all put together. A superficial examination of population and revenue alone would tempt to the conclusion that France has larger resources than the United Kingdom, because it has more population and more revenue; and that the United States has more resources than either because it has larger population, and does not fall short in revenue when Imperial, State, and local revenues are put together.

These conclusions themselves may also be true, apart from the data; there may be other data to support them; but at least the data we have been dealing with as to property show that it would be unsafe to rest in the conclusions without farther examination and discussion.

Taking population alone, the figures for the three countries are about:—

	Mlns.
United Kingdom	37
France	38
United States (part estimate)	56

Taking actual revenue alone, the figures are:—

	Imperial.	Local (includ'g State).	Total.
United Kingdom (mlns.)	90	60	150
France ,, ...	140	40	180
United States ,, ...	70	65	135

The amounts per head being:—

	£ s.
United Kingdom	4 0
France	4 10
United States	2 10

In property, however, the figures would work out:—

	Total.	Per head.
United Kingdom	10,000	270
France	7,200	190
United States	8,000*	160

—showing that if the United Kingdom has fewer numbers than its great neighbours, and a smaller, or not greater, actual revenue, yet its property as

* Not deducting for indebtedness to foreign countries.

actually developed is greater, and especially greater per head, which must surely qualify very much the conclusion from numbers and revenue alone. That this must be the case can be seen by the simplest comparison between the property and the actual revenue. In France the Imperial taxation is nearly 2 per cent. of the property; Imperial and local revenue together, $2\frac{1}{2}$ per cent. of the property. In the United Kingdom the proportion is for Imperial revenue about 0 9 per cent only; for Imperial and local together, less than $1\frac{1}{2}$ per cent. Whatever the income from property may be, these differences in what is taken by the Government must be serious. Similarly, in the United States, although the taxation per head is less than in the United Kingdom, the annual revenue of the central government in proportion to the capital of the community mounts up to about 1 per cent. of the property; and the annual revenues of the central state and local governments together to about $1\frac{1}{2}$ per cent. of the property. The notion that taxation in the United States is low compared with the figure in the United Kingdom is thus shown to be unfounded, while we get a notion of the burden of taxation in France, which alters altogether the superficial impression conveyed by the amount of the national revenue itself. If we were to go farther, and compare taxation with income and taxable income as well as with property, the aspect of the facts would be still further altered, I believe, to the advantage of the United Kingdom in the comparison; but it would clearly be useful also to compare the property.

The broad facts are also such, it will be observed, that any possible variation from the true facts as to property would modify the conclusions very little.

The greater wealth of the United Kingdom per head, as compared with either France or the United States, would still remain undoubted, however the figures may be modifiable; though we must now conclude that in absolute amount at the present moment the wealth of the United States is probably much greater than that of the United Kingdom, and almost certainly as great.

Comparing the wealth of the United Kingdom, or of France and the United States, with other States, such as Italy and Belgium, there is room of course for a still wider margin of error without affecting the broad conclusion of their immense preponderance in resources.

The preponderance of England by itself in the United Kingdom as compared with either Scotland or Ireland, especially Ireland, is equally apparent, and no possible modification of the figures would alter the conclusion. It is infinitely greater than the preponderance shown by population alone.

A special point on this head may also be referred to. We hear a good deal of the vast expenditure on military armaments, and the burden they impose on certain communities. Heavy as the burdens are, does not the vast amount of property relatively indicate that the point of exhaustion may be more remote than is commonly supposed? To treat this topic suitably would require a paper by itself, which I hope to write some day; but it may be useful now to hint at the conclusions I am disposed to arrive at. The relativity of the burden of military armaments has been too little considered, I fear, by economists who have denounced them in the abstract, and whose denunciations have, in fact, been falsified by the continued prosperity of the countries which ought to have been ruined but were not.

The next suggested use of the figures is that of indicating generally the proportions of the different descriptions of property in a community—how the wealth of a community is composed. Here we find that the relative bulk of the main descriptions of property comes out clearly enough, while the utility of being able to answer, however roughly, how much of the property is land, how much houses, how much is invested in industry, and so on, is manifest. These are obviously all matters which may become of practical interest in connection with problems of taxation, as they were, in fact, of interest at the beginning of the century, when Dr. Beeke made one of the studies on the subject to which reference has been made in the course of the present essay. The fact of exact figures being impossible hardly affects the value of the result. It is important, for instance, to know whether land represents about three-fourths, or a-half, or a-third, or a less proportion of the whole wealth of a community, although it may not be possible to state to a fraction whether the proportion, instead of being exactly three-fourths, is perhaps 70 per cent. only, or perhaps 80 per cent. Within a very wide limit of error the figures may obviously be of some use.

The value of the results is increased when historical comparisons are attempted, or comparisons between different countries. If in a country like England we find land at one historical period to constitute 60 per cent. or upwards of the total wealth, and then by a gradual descent to be less than 20 per cent., the value of the land itself almost all the while steadily increasing, then, in spite of inexactness in the figures, the broad fact is in many ways instructive. Whether the change, if more exactly described, would be from, say, 65 or 55 to 25 or 15 per cent., the nature of the change would hardly be affected, while it is obvious that the limit of possible error is not nearly so wide. In comparing England with France, again, or with the United States, it is at once obvious that economic conditions are entirely different, seeing that England has less than a fifth of its wealth in land, while France has half, or more than half, and the United States more than a third. Minute accuracy is here unnecessary, while the proportions, if fractionally changed, would still justify the broad conclusions which they now appear to justify.

We come next to the question of applying the figures in the comparisons above stated in the illustration of historical problems, either in the history of a particular country or in the comparative history of one or more countries. Here, again, minute accuracy is less necessary than ever, while the appositeness of the figures is more than ever palpable. This has already been seen incidentally in various ways, as, for instance, with reference to the last head of the comparison where attention has been drawn to the changing proportion of land to other property in England. But many other illustrations could be given. To begin with,—The concrete instances already given in Chapters III. and VI., have only to be mentioned to show how practically useful these comparisons may become. The conspicuous difference between the proportions of the National Debt to our resources at the end of the great wars at the beginning of the century, and at the present time, shows, perhaps, most strikingly the value of the comparison. The whole debt, allowing especially for the recent increase of the debt incurred for the purpose of making loans to local authorities, has not diminished much in the interval; but seventy years ago this debt amounted to a third of the property of the community. The accumulations of the community in the interval, from about 2,200 to 10,000 millions, or, in round figures, 7½ thousand millions of accumulations, are about ten times the National Debt proper, and about eight times the debt of the Imperial Government and the localities put together. Comparing the progress of the accumulation with revenue, what appears is that, whereas the revenue of the State seventy years ago was equal to a tax of about 3 per cent. on the property of the community, it is now, as we have seen, about 0·9 per cent. only of the property, and, even adding local revenues, the whole is less than 1½ per cent. of the property. The burden of Government is thus greatly less than it was.

When the respective amounts per head are compared, the facts are exhibited even more strikingly. Whatever doubts, it may again be repeated, exist as to the valuations themselves, yet the limit of error is such, when we compare such distant intervals, as to leave no doubt that, when all possible corrections are made, the comparisons of the accumulations with the growth of population, revenue, and debt would be substantially unaffected. That there has been an immense reduction of burdens compared with resources is clear.

Even comparing the last two or three decades only, where we have not the advantage of distant intervals to take away the effect of unavoidable error in somewhat rough computations, the figures are found to be so large as to justify our affirming with certainty a great reduction of burdens. Between 1865 and 1875 the increase of property, amounting to 2,400 millions, was about three times the debt; between 1875 and 1885 the increase, amounting to 1,500 millions, was nearly twice the debt. The valuations at each date may be rough, but being made on the same basis on each date, the figures as to the accumulations can hardly be exaggerated. Suppose the mode of valuation to exaggerate the property at a given date 10 per cent., the effect would be to exaggerate the accumulation between two dates by an equal percentage. In the first period, therefore, the correction would be to substitute about 2,160 for 2,400 millions, and in the second period to substitute 1,350 for 1,500 millions, which would for all practical purposes show so enormous a growth of property in comparison with debt as to make the difference between them and the larger figures immaterial.

The figures, of course, are only to be used in conjunction with other facts, and such a fact, for instance, as the fall of prices qualifies them materially for some comparisons. In the present case, however, the comparison is of one money value with another, and the relation of property to debt has changed in the way described. It is quite conceivable, however, that along with changes in a community as regards real wealth, wealth in things as distinguished from money values, in the direction of greater prosperity, or the reverse, there might be changes in money values in the opposite direction. All that is noticed here is the actual change as between property and debt, which is not affected by this consideration.

The comparisons are even more interesting when we pass to France and the United States. In France, it may be doubted whether property has been increasing for several years, but debt has been increasing. Between 1865 and 1875, again, came the Franco-German war, which added several hundred millions to the debt. If we go back fifty years ago or so, it might appear that French resources have increased to an enormously greater amount than the debt; but it may be doubted whether the proportion of debt to resources is not higher than it was—at least, if a comparison is made for the last ten years or so.

In any case, if there is improvement in France as regards resources in relation to debt, and a similar improvement as regards property and revenue, it is not so great an improvement as there has been in the United Kingdom in the same period.

The same facts could be shown by a comparison of the growth of expenditure only, which has been much greater in amount and proportion in the last fifty years than it has been in the United Kingdom; but the relation between resources and burden makes the comparison far more complete.

The history of the United States on this head is quite the opposite. As lately as 1865 the United States had a debt of 600 millions sterling, with an annual charge of 30 millions sterling, bearing a considerable proportion, there is no doubt, to the property and resources of the country at the time. The sum of 600 millions, as compared with the true valuation of 1860 above given, is about 20 per cent. Now the debt is only half what it was, and the property is three times what it was. The debt, from being a fifth of the property, has, in the short period of twenty years, become one-thirtieth only.

In no other way could the difference in financial progress between France and the United States be so vividly shown as by introducing this factor of property in dealing with the financial history. The difference between the United States and the United Kingdom, though not so marked, is also very great. Our accumulations in the same period are about five times our debt, which has not much changed in the interval. The accumulations in the United States are ten times what the debt was at the commencement of the period, and twenty times what it is now.

Of course the results thus arrived at are only materials for the critical economist or historian who has to discuss causes and consequences. The United States may have acted unwisely and might have been able to exhibit even better results if it had acted differently. Either France or the United Kingdom, on the other hand, may have done the best that could be done with the means at their command. Communities have their good and bad fortune. The criticism and discussion should be all the clearer, however, the better the facts are brought out.

We come next to the use of the statistics for comparing the growth of the capital in a given period with the amount annually available for investment through the mechanism of the Stock Exchange. On this head the figures appear to be most instructive as regards an economic fact of exceeding importance and difficulty. It is most difficult to realise, until one thinks of it, that savings in the modern industrial world can only be made by a community as a whole *as they are invested;* saving and investment go on *pari passu.* But the appreciation of this fact is necessary to the comprehension of our monetary system. If the two things were not to go on *pari passu,* and the saving community in all directions endeavoured to heap up its savings in hard cash even for a month, certainly if it did so for a year, the Money Market would collapse. The accumulations of a single year, even taking them at 150 millions only, according to the figures of 1875-85, instead of the higher figures of the preceding decade, would absorb more than the entire metallic currency of the country. They cannot, therefore, be made in cash. An individual may save by depositing what he calls cash with his banker; but the banker must either invest directly or indirectly through a borrower, and there must be new investments for the new money, or the investments could not be made in the aggregate, for although the banker or his borrower may purchase old investments, the seller has immediately the same money to re-invest. Hence the importance of the question of what has been described as free savings coming on the Stock Exchange for investment, as compared with accumulation generally. Savings, in fact, are made as a rule individually. A shopkeeper, or merchant, or manufacturer making profit adds to his stock, or improves his premises, or buys a new house. In this or some similar way profits and savings are invested directly as they are made, and they have no visible effect on the Money Market. The industrial world could not, in fact, go on unless by a fixed arrangement for saving,—a portion of the community being constantly employed by the savings directly to create the investments in which the savings may be put. It is only a certain part of the whole savings which goes to the Stock Exchange, and seeks new securities of the kind dealt with there. Even a portion of this part is comparatively steady; but there is a varying surplus, and the changes in this surplus, or final margin, are most significant of the general state of trade. When the surplus is at a maximum it is a sign of inflation, of great and unusual profits in trade; when it is at a minimum it is a sign of losses and discredit. It is probable that even the final margin never varies so much as it seems to vary; difficulties arising through people, when prosperous, engaging to invest more than they afterwards find they can save, but the real savings not even then being changed. But there are undoubtedly variations in the final margin which it would be interesting to trace. Whatever it is, let it be understood that the margin is one which, like all other savings, is accruing constantly, and is constantly being invested. If it were not so, there would be a great accumulation of cash in the banks, and this we never see.

How much is the free saving in proportion to the total, how much is the margin, and how much does the margin vary? No complete answer can be given to these questions; but from calculations I have made at different times I should say that about 80 millions annually represents this free saving, or about a third of the annual accumulations between 1865 and 1875, and about a half of the annual accumulations between 1875 and 1885. This means, however, that the amount as a rule is about a third, because the fall of prices has to be allowed for in the latter period. But for this fall the money value of property at the present time would be more than it is, and we may assume that the new accumulations, in things, have been more than the difference of the valuations in 1875 and 1885. In any case the figure must be a large one. The saving in the form of new houses and furniture, the largest items in the above list, is not free savings; and the same may be said of many of the investments in mines and other property, especially in trades and professions. The savings are invested as they are accumulated, directly by the owners, and are not free. As to the final and varying margin it is impossible to give exact figures, but even a small sum, such as 20 millions, coming on the Stock Exchange in a fat year compared with a lean year probably makes an enormous difference. Any greater apparent difference probably implies much inflation and paper profit which swells Stock Exchange prices for a time, but disappears as it began. The free margin, whatever it is, goes very largely into foreign and colonial securities, but the exact amount invested in this manner cannot easily be traced in consequence of the continual sales and purchases of old securities as distinguished from new issues which are being made. It is quite easy for the Stock Exchange of London to purchase and bring over from New York batches of existing American securities, the money which is paid for them being invested by Americans in new securities. The rule that there cannot be a new saving in the aggregate without a new investment is thus complied with; but the aggregate in the case supposed must include the whole field of investment—the new investment need not be at home, and it may be made abroad in an indirect manner. *Qua* the English investor the transaction is the purchase of an old security, but *qua* the general field of saving and investment, there is in the whole transactions a new investment.

The final question to be treated is the use of these general figures in discussions as to changes of prices and in the purchasing power of money. Illustrations have already been given on this head in connection with the question of the comparative rate of progress of accumulation in different periods during the last fifty years and longer (see Chapter III. *supra*); but it may be useful to point out even more generally how the figures may be used.

It is plain, then, that the results of the valuations of the property of the community at different dates unavoidably suggest that changes of prices may have to be allowed for. The increase of the valuation, it is plain, may either be in exact proportion to the increase of population, or in proportion to that increase multiplied by an assumed increase of the productive capacity of the people in the period under review. If two periods are compared in which the increase of population is known to be at much the same rate throughout, and the increase of productive capacity may be assumed to be at the same rate or not less in one of the periods than in the other, then if the apparent accumulation of capital in the one period proved to be less than in the other, it must be ascribed to some change in the money values. All other factors are equal, but the money expression of wealth has not increased as it would have done if prices had also been equal. This has been fully shown in the illustration already referred to from recent periods in English history. The utility of the figures, therefore, to illustrate changes of prices is apparent.

That the phenomena are quite general is obvious, moreover, from a comparison with the French returns of successions already referred to. Whatever may be the causes of these changes of prices, their visible effect on the periodic valuations of property leaves no doubt that they can only be described as significant of changes in the purchasing power of money—in the ratio of exchanges between money and other things. If the valuations were to be corrected by the ratio of exchange of a group of staple articles, a more steady rate of growth would be apparent.

Farther, there is no doubt that in future such valuations may even be more useful in connection with questions of changes in prices than they have been in the past. As valuations are made more frequently from time to time, and the method and data improve, while other data, showing the progress of population and of industrial power, also improve, the varying rates of the accumulation of property as expressed in money cannot but attract attention. The failure of a money accumulation to come up to a normal rate, or its excess over that rate, or its correspondence to that rate, will all be matter for observation and discussion, and will serve to correct and qualify the notions as to changes in the standard itself which may be otherwise arrived at. It is already permissible to anticipate that the next valuation of the United Kingdom may show about as slow a progress as that of the last decade, and not the rapid advance of the years 1855-75. The same in other countries. The reason being not that real wealth—the wealth in things—is not progressing at as great a rate as ever it did before, but that the material of which money is made, notwithstanding the constantly new appliances for the efficiency of money, does not alter in such a way as to maintain prices at their former level.

Valuation of property, therefore, and studies of the accumulation of capital, though the figures are necessarily rough, have their uses in various investigations. They make a little clear what would otherwise be most dark, and they suggest problems for inquiry which would not otherwise be thought of. The figures, though rough, can be reasoned on safely with care. Better figures would be desirable, but in the absence of better figures it would be folly not to use what we have, and set our wits to work to use them properly.

I should be disappointed, however, if the discussions of the last few years do not lead in time to the production of better figures. As the practice of periodic valuations continues, light should be thrown on the value of the method and the way in which it can be used properly, while investigations could be made by means of the various property taxes and otherwise which would throw light on some of the more difficult parts of the problem. If the Inland Revenue Department, for instance, were to inquire into the proportions of different kinds of property passing at death, and to publish the results, these proportions might become a check upon general valuations of property. The resemblances or differences in the proportions might suggest points for inquiry, and by arguing from the known to the unknown, useful corrections, at least, in minor details, could probably be obtained. The census might also be made use of, as it is in the United States, in order to obtain data for an independent valuation apart from the Income Tax returns. Were all this trouble taken, results would be arrived at which would be of the utmost value to the Government practically, as well as to economists in their discussions. The progress of revenue is intimately connected with the progress of national resources, and the progress of money revenue with the progress of the money expression of these resources. The resources themselves and the money values must be studied by Chancellors of the Exchequer with almost equal anxiety, and they should both, at any rate, be studied together. Periodical complete valuations of property are in this view as indispensable as the census of population itself.

APPENDIX.

I.—Estimate of Annual Interest on English Capital Invested Abroad in Public Loans or Shares of Companies.

(Compiled from "Investor's Monthly Manual," 31st May, 1886, and Banking Supplement to "Economist" for 22nd May, 1886.)

[000's omitted.]

	£	£
1. *Public Loans* in "Manual" List, exclusive of United States, French, Austrian, and Italian, only partially held here, and of Prussian, Dutch, and certain (recent) Russian loans, almost wholly held abroad	38,470	
Add estimate for proportion of United States, French $4\frac{1}{2}$ per cents, Austrian, and Italian held here. Total interest = £37,267,000, say $\frac{1}{10}$th.*	3,726	
		42,196
2. *Railways.*—		
(*a*) United States, excepting shares and bonds of lines in default	13,906	
(*b*) Indian and Colonial	6,264	
(*c*) Foreign, £7,042, less £1,168, half of Lombardo-Venetian interest	5,874	
(*d*) Add—French railways £17,990, say $\frac{1}{10}$th held in England	1,799	
		27,843
3. Dividends of Anglo-Foreign and Colonial		
(*a*) Banks		3,656
(*b*) Canal companies†	314	
(*c*) City loans	964	
(*d*) Gas and waterworks	1,093	
(*e*) Coal, iron, and steel companies	120	
(*f*) Land, financial, and investment companies	1,328	
(*g*) Tea Companies	71	
(*h*) Other companies	1,293	
(*i*) Mines	500	
		5,683
4. Capital investment of English insurance companies doing business abroad, say £11,000,000 at 6 per cent		660
5. Deposits of Anglo-Foreign and Colonial banks, = £176,000,000 (*Economist*), at say 3 per cent		5,280
Total		85,318

* In 1878 this item was estimated at $\frac{1}{5}$th, but apparently since that time the English holding of these particular securities would seem to have been diminished in proportion.

† Exclusive of Suez Canal Shares.

II.- *Summary of List of Public Issues of Loans and undertakings on account of Foreign Countries in the years 1876-85 inclusive, as published in "Statistical Society's Journal," March, 1882, pp. 91 et seq and to be continued in the "Statistical Society's Journal" for 1890.*

[In thousands of pounds, 000's omitted.]

	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
	£	£	£	£	£	£	£	£	£	£
Colonial Government Loans	16,240	7,370	11,451	18,934	12,982	11,168	9,177	24,097	23,937	23,530
Municipal Loans	681	974	792	1,538	1,368	100	641	1,512	1,832	2,295
Foreign Government Loans	3,479	6,272	10,730	...	859	6,471	10,083	7,601	10,329	7,265
Railway Issues	5,242	4,164	2,931	2,626	14,671	26,302	25,260	15,554	12,754	18,584
	25,642	18,780	25,904	23,098	29,880	44,041	45,166	48,764	48,852	51,674
Miscellaneous Companies	...	1,700	755	4,040	3,990	13,542	17,122	15,028	12,267	3,582
Mining Companies	...	...	...	...	7,051	11,082	2,643	2,500	3,852	2,252

III.—Valuation of England, Scotland, and Ireland, separately, according to Income Tax Returns.—Year 1885.

ENGLAND.

Amount of Income in Income Tax Returns, derived from Capital; Number of Years' Purchase at which the same may be Capitalised; and Approximate Amount of Capital, together with Estimate of remaining Income and Capital in the Country.

[000's omitted in amount columns.]

	Income.	Years' P'rchase	Capital.
Under Schedule A—	£		£
Lands	47,594,	28	1,332,632,
Houses	112,792,	15*	1,700,741,
Other Profits	732,	30	21,960,
Schedule B— (Farmers' profits)	47,788,	8	382,304,
Schedule C— (Public funds less home funds)	18,641,	25	466,025,
Under Schedule D—			
Quarries	821,	4	3,284,
Mines	6,609,	4	26,436,
Ironworks	1,924,	4	7,696,
Gasworks	4,463,	25	111,575,
Waterworks	2,945,	20	58,900,
Canals	3,012,	20	60,240,
Fishings	194,	20	3,880.
Market Tolls, &c.	520,	20	10,400,
Other public companies	29,692,	20	593,840,
Foreign and colonial securities, &c.	9,328,	20	186,560.
Railways in United Kingdom	28,190,	28	789,320,
,, out of United Kingdom	3,681,	20	73,620,
Interest paid out of rates, &c.	4,567,	25	114,175,
Other profits	1,046,	20	20,920,
Trades and professions—one-fifth of total income of £154,360,000	30,872,	15	463,080,
Total under Income Tax	355,411,	...	6,427,588,
Trades and professions omitted, 20 per cent. of amount assessed, or £30,872,000, of which one-fifth is	6,174,	15	92,610,
	840,†	15	12,600,
Income of non-income-tax paying classes derived from capital	57,000,	5	285,000,
Foreign investments not in Schedules C or D	50,000,	10	500,000,
Movable property not yielding income, *e.g.*, furniture of houses, &c., works of art, &c.	...	...	850,000,
Government and local property, say	...	...	450,000,
	469,425,	...	8,617,798,

* The number of years' purchase here is a small fraction over 15.
† Estimate of income escaping assessment by raising limit of exemption in 1876

SCOTLAND.

Amount of Income in Income Tax Returns, derived from Capital; Number of Years' Purchase at which the same may be Capitalised; and Approximate Amount of Capital; together with Estimate of remaining Income and Capital in the Country.

[000's omitted in amount columns.]

	Income.	Years' P'rchase	Capital.
Under Schedule A—	£		£
Lands	7,462,	28	208,936,
Houses	12,280,	15*	185,500,
Other Profits	48,	30	1,446,
Schedule B—			
(Farmers' profits)	7,462,	8	59,696,
Schedule C—			
(Public funds less home funds)	1,400,	25	35,000,
Under Schedule D—			
Quarries[1]	99.	4	396,
Mines	982.	4	3,928,
Ironworks	341,	4	1,364,
Gasworks	372,	25	9,300,
Waterworks	265,	20	5,300,
Canals	409,	20	8,180,
Fishings	363,	20	7,260,
Market Tolls, &c.	24,	20	480,
Other public companies	3,813,	20	76,260,
Foreign and colonial securities, &c.	442,	20	8,840,
Railways in United Kingdom	3,792,	28	106,176,
" out of United Kingdom	109,	20	2,180,
Interest paid out of rates, &c.	283,	25	7,075,
Other profits	369,	20	7,380,
Trades and professions—one-fifth of total income of £19,215,000	3,843,	15	57,645,
Total under Income Tax	44,158,	...	792,336,
Trades and professions omitted, 20 per cent. of amount assessed, or £3,843,000, of which one-fifth is	769,	15	11,535,
	100,†	15	1,500,
Income of non-income-tax paying classes derived from capital	7,500,	5	37,500
Foreign investments not in Schedules C or D	...	...	...
Movable property not yielding income, *e.g.*, furniture of houses, &c., works of art, &c.	...	...	90,000,
Government and local property, say	...	...	40,000,
	52,527,	...	972,871,

* The number of years' purchase here is a small fraction over 15.
† Estimate of income escaping assessment by raising limit of exemption in 1876

IRELAND.

Amount of Income in Income Tax Returns, derived from Capital; Number of Years' Purchase at which the same may be Capitalised; and Approximate Amount of Capital; together with Estimate of remaining Income and Capital in the Country.

[000's omitted in amount columns.]

	Income.	Years' P'rchase	Capital.
Under Schedule A—	£		£
Lands	9,983,	15	149,745,
Houses	3,387,	12*	40,644,
Other Profits	97,	30	2,910,
Schedule B— (Farmers' Profits)	9,983,	8	79,864,
Schedule C— (Public funds less home funds)	1,055,	25	26,375,
Under Schedule D—			
Quarries	13,	4	52,
Mines	12,	4	48,
Ironworks	...	4	...
Gasworks	191,	25	4,775,
Waterworks	50,	20	1,000,
Canals, &c.	125,	20	2,500,
Fishings	61,	20	1,220,
Market Tolls, &c.	46,	20	920,
Other public companies	1,284,	20	25,680,
Foreign and colonial securities, &c.	89,	20	1,780.
Railways in United Kingdom	1,288,	28	36,064,
,, out of United Kingdom	18,	20	360,
Interest paid out of rates, &c.	191,	25	4,775,
Other profits	20,	20	400,
Trades and professions—one-fifth of total income of £6,904,000	1,381,	15	20,715,
Total under Income Tax	29,274,	...	399,827,
Trades and professions omitted, 20 per cent. of amount assessed, or £1,381,000, of which one-fifth is	276,	15	4,140,
	20,†	15	300,
Income of non-income-tax paying classes derived from capital	2,500,	5	12,500,
Foreign investments not in Schedules C or D	...	...	...
Movable property not yielding income, *e.g.*, furniture of houses, &c., works of art, &c.	...	...	20,000,
Government and local property, say	...	...	10,000,
	32,070,	...	446,767,

* This is less than the average for the United Kingdom.
† Estimate of income escaping assessment by raising limit of exemption in 1876.

IV.—Mr. Beeke's Valuation of Great Britain *circa* 1800.

Extract from Mr. Beeke's Observations on the Produce of the Income Tax &c. (pp, 182-5.)

POSTSCRIPT.

I subjoin a short statement of the present value of the capital of Great Britain, abstracted from one which I drew up with some attention a few years ago, and which was calculated on grounds similar to those of the preceding estimate of income. It will not be expected that I should here enter into the particulars of my calculations, but this summary sketch may have its utility in pointing out the amount to which human industry has raised the value of this country beyond that of its natural produce, and in giving some idea of the immensity of the losses which might be occasioned by an overthrow of the principles of order and a disregard of the security of property. For this reason I have included a very moderate estimate of many articles of public property not convertible into money (at least, to any considerable amount), but which are necessary to the enjoyment of civil society in its present form, and which were originally provided, and must be replaced if destroyed, at an expense vastly exceeding what I have allowed for them.

PRIVATE PROPERTY.

Productive of Income.

	£
1. Cultivated lands, South Britain, £600,000,000; North Britain, £120,000,000.*	720,000,000
2. Tithes, in South Britain only after deductions for the personal service required on account of the part possessed by the clergy.†	75,000,000
3. Houses not included in the rent of lands.‡	200,000,000
4. Mines, canals, timber, tolls, &c., &c.§	100,000,000
5. Present value of income from the public debt	300,000,000
6. Farming capital, equal at present to not less, on an average, than 5 clear rents, viz., pasture, 2 to 3; arable, 5 to 7 rents	125,000,000
7. Home trade.‖	120,000,000
8. Foreign trade and shipping**	80,000,000
	1,720,000,000
Unproductive of Income.	
	£
9. Waste lands, after excluding all such as are incapable of any improvement adequate to the expense, and also allowing for incidental diminution of the value of adjacent lands in case of their loss of the benefit of pasture, &c., about 10,000,000 acres	30,000,000
10. Household furniture	160,000,000
11. Plate, jewels, and all other useful and ornamental articles not considered as household furniture	50,000,000
12. Specie, about	40,000,000
Unproductive private property	280,000,000
Productive private property	1,720,000,000
Total	2,000,000,000

* See p. 19, &c. † See p. 28, &c. ‡ See p. 38. § See p. 36, &c. ‖ See p. 112 &c. ** See p. 14, &c., and 111. [These references are to the pages in Mr. Beeke's pamphlet.]

PUBLIC PROPERTY.

	£
The value of that part of the permanent income* of the nation which is applicable to the annual expenditure, about	160,000,000
The value of that part which is appropriated to extinguish the public debt, about	90,000,000
Value of shipping, arsenals, national buildings, stores, credits, and all other assets, after deducting all unfunded debt	15,000,000
Value of all provincial and municipal buildings, &c., &c., as churches, hospitals, bridges, prisons, &c., &c., with the effects belonging to them	25,000,000

* This calculation is founded on the produce of the national income in 1798, exclusive of the aid and assessment, or any other temporary articles. In 1799 that produce was much more considerable.

N.B.—A good deal of public has been already estimated jointly with private property, such as the crown lands, corporate incomes, &c., &c. But in so general a statement as this a more accurate analysis appears to be unnecessary.

The above statements must certainly, in many parts of them, depend on circumstances which allow a considerable latitude of conjecture; but they are not made in any instance without some attention to the general, civil, and political economy of the country, and probably do not vary more than one-tenth, at most, from the real value of the whole capital of Great Britain, which appears to be about £2,300,000,000 or between two thousand and two thousand five hundred millions sterling, exclusive of any value which might be assumed for personal labour; and also exclusive of foreign possessions to the value of at least £100,000,000 sterling, which belong to settled inhabitants of this country, and which, therefore, if sold, and if the produce of their sale were remitted to Great Britain, would obviously be considered as a part of the national capital, and perhaps ought now to have been included as such in the preceding estimate of productive private property.

V.—Mr. Lowe's Valuation of the United Kingdom *circa* 1822.

Extract from Mr. Joseph Lowe's "Present State of England" (Appendix, pp. 82-3).

CALCULATION OF NATIONAL PROPERY.

Great Britain and Ireland.	Computation for 1812, nearly in the form adopted by Mr. Colquhoun.	A similar Computation for 1823.
	£	£
Land under cultivation, whether in pasture, tillage, or gardens	1,280,000,000	1,200,000,000
Farming capital, whether vested in implements of husbandry and farming stock, or in corn and other produce	228,000,000	200,000,000
Dwelling-houses, warehouses, and manufactories	400,000,000	400,000,000
Manufactured goods in progress or ready for sale, whether in manufactories, warehouses, or shops; also foreign merchandise on hand	160,000,000	140,000,000
British shipping of every description...	27,000,000	20,000,000
Here it seems fit to make an addition to Mr. Colquhoun's statements on account of—		
Mercantile and manufacturing capital not specified by him, viz., money in hand, advances to correspondents abroad, manufacturing machinery, tools and implements of mechanics...	130,000,000	130,000,000
This carries to nearly £300,000,000 our mercantile and manufacturing capital employed in current business, and exclusive of whatever capital our merchants may have in fixed property, such as the funds, land, or houses.		
Such are the great heads of our national property—the lesser, as given by Mr Colquhoun, are—		
Mines and minerals	75,000,000	65,000,000
Canals, tolls, and timber	50,000,000	45,000,000
Total	2,350,000,000	2,200,000,000

This table is to be understood as representing private property, and exclusive of—

1. All public property, such as military stores, churches, hospitals; also of

2. Such private property as is unproductive—viz., waste lands, furniture, or wearing apparel; and, finally, of

3. Whatever is expressive of a debt from one part of the community to another, such as the stocks, mortgages, or mercantile acceptances.

How, it may now be asked, does it happen that the decrease of our national property, since the peace is so much less than is commonly supposed? The reasons are—

Land, as a property, is worth, in peace, from thirty-two to thirty-five years' purchase; in war, only twenty-seven or twenty-eight years' purchase; so that, though on our rental we reckon a fall of fully 30 per cent., the principal has not sunk above 15 or 20 per cent.

Farming capital experiences at present a depression of value far beyond the reduction in our table, but its amount in 1812 was, we believe, underrated by Mr Colquhoun, while, in point of quantity, whether of implements, cattle, or corn on hand, it has increased, probably, 20 per cent. since that year.

As to buildings, whether warehouses, manufactories, or dwellings, the surprising increase in the number appears fully to have balanced the decrease of rent, particularly as such decrease appears to have been much smaller in this kind of property than in land.

In our manufactured and foreign goods on hand the fall of price, great as it has been, is nearly equalled by the increase of quantity. In our shipping the case is otherwise, and we have accordingly made a large deduction.

Such is the comparative amount of our national property in 1812 and 1822 when represented in money of the respective years. But were the calculation for both made in money of equal value, the balance would be in favour of the present year; we mean, that the valuations for the present year, if made in the money of 1812, would not be short of £2,500,000,000.

Were we to take a retrospective view of the value of our national property since 1792, we should, in the absence of satisfactory returns for the earlier years, estimate it at two-thirds of the present amount.