DUBLIN STATISTICAL SOCIETY.

ON THE BEST

MEANS OF RAISING THE SUPPLIES

FOR A

WAR EXPENDITURE.

A PAPER READ BEFORE

THE DUBLIN STATISTICAL SOCIETY,

ON THE 20TH OF MARCH, 1854

BY JOHN E. CAXBNES, A.B., ESQ.

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THIS society was established m November, 1847, for the purpose of promoting the study of Statistical and Economical Science. The meetings are held on the third Monday in each month, from November till June, inclusive, at 8, p. M. The business is transacted by members reading written communications on subjects of Statistical and Economical Science. No communication is read unless two members of the council certify that they consider it in accordance with the rules and objects of the society. The reading of each paper, unless by express permission of the council previously obtained, is limited to *half an hour*.

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The subscription to the society is one pound entrance, and *ten shillings* per annum.

On the Best Means of Raising the Supplies for a War Expenditure. By John E. Cairnes, Esq.

THE question respecting the raising of the supplies for a war expenditure, by what means they can be most efficiently obtained, and with the least inconvenience to the community, has been of late years allowed to fall m some degree into abeyance ; owing, perhaps, to the small probability there seemed of there being any occasion for bringing it to a practical decision. It appears, however, that it is not likely to enjoy this exemption from discussion much longer On the contrary, there seems now to be little doubt that the financial problem of a war expenditure will soon assume a character of formidable and pressing importance ; and under these circumstances, a brief notice of this question, and of some of the arguments and statistics applying to it, may perhaps possess some interest for this society.

In the estimates for the war expenditure of the present year, there is, indeed, nothing to occasion much alarm ; an increased tax of 3 per cent, on our incomes, even though it were laid on for the whole year, would not be a very formidable addition to our burdens; and, if this formed any measure of future demands, there would be little need to re-open the subject.

But upon this point the testimony of experience is decisive. Whatever other benefits we may derive from an improved civilization,—however it may lessen the number, or moderate the violence of wars,—it is at least certain that it tends to render them progressively more and more costly Thus, if we trace the progress of our national debt, we shall find that, throughout the numerous wars that have taken place since its commencement, it has been accumulating at a constantly accelerating pace. The average debt, for example, contracted annually during the wars commencing with the Revolution of 1689, was, in round numbers, about *two millions and a half;* in the wars carried on during the reign of Queen Anne, the average debt annually contracted was about *three millions ;* in the Spanish war of 1739, about *three and a half millions* annually; in the seven years' war, about *nine millions* annually ; in the American war, commencing 1775, about *fifteen millions* annually ; in the wars between 1793 and 1814, about *twenty-three and a half millions* annually ; and in the war of 1815, upwards of *thirty millions ;*—that is to say, the debt contracted in the closing year of the last war, was about twelve times greater than the average debt annually contracted in the earlier periods of its accumulation; and this, concurrently with the raising of a revenue which was constantly increasing also, and which, at the close of the last war, had reached an amount greater than any country of equal resources had ever yielded before If this country, then, is to engage in a struggle, which will certainly be arduous, and may prove protracted, we have no warrant from experience for supposing that it will be carried on at less expense than those which preceded it. The question, therefore, regarding the means by which such expenditure is to be met, is not likely to decline m importance.

There are two modes in which the supplies necessary for a war expenditure may be raised, (I omit the practice of hoarding treasures, as being, I believe, quite at variance with modern notions of finance). 1st, the requisite sum may be obtained by means of a government loan, the interest only being charged upon the national revenue ; or, 2ndly, it may be obtained by levying additional imposts to meet the whole of the increased expenditure—as it is commonly expressed, " by raising the supplies within the year." In examining the merits of each of these plans, and the arguments that are usually advanced in support of them, it will be convenient to consider the question under the several aspects of *moral, economical,* and *financial.*

On moral grounds it has been urged that since posterity derive benefit from preceding wars, it is but equitable that they should share the sacrifice necessary to sustain them. Now, the loan system is said to satisfy this condition. Instead of throwing the weight of war, once for all, on the generation which wages it, it entails a portion of the burden m the shape of interest upon future generations ; and this distribution of the charge over successive generations—each of which enjoys the peace and security which are the results of former contests—is thought to be more equitable than that a single generation should be left, unassisted, to sustain the concentrated weight of the sacrifice. The cogency of this argument must depend upon the assumption that posterity derive some real benefit from former wars In order that they should, it is necessary that these wars should have been just and expedient. From wars which have been undertaken through mistaken views of national interests ; from wars which have been precipitated through the ungovernable violence of national passions ; posterity derive no equivalent for the sacufice which the loan system imposes on them. Now, many such wars have been undertaken; many such wars may be again undertaken. In such cases, if we are to be governed by our views of justice, justice would prescribe that men should reap what they had sown, that the evils of an expensive contest should fall exclusively on the heads of those whose folly or wickedness had provoked it. These considerations appear to me greatly to weaken, if they do not entirely neutralize the argument in favour of government loans, drawn from ideas of justice.

But whatever difference of opinion there may be on this point, there is another upon which the moral argument seems to be decidedly adverse to the loan system, and m favour of raising the supplies within the year. War is, at best, an evil,—the best of two bad alternatives ; when, therefore, a nation undertakes the serious responsibility of engaging m a war, it is at least important that it should be made thoroughly to appreciate the full magnitude of that evil; it is important that it should see clearly, and weigh coolly the nature and extent of that sacrifice, which the course it has adopted demands. But the passions and prejudices which are aroused and gather strength, during the excitement of a long contest, are but little favourable to that coolness of judgment which can estimate nicely, and in impartial scales, the exact justice of the cause in debate : it is therefore highly important that, to balance that force of prejudice and passion which cannot but be awakened in such kindling times, there should be thrown into the scale of peace a make-weight of interest

Now this is exactly what the system of raising the supplies within the year accomplishes When war commences, the exact extent of the sacrifice which it demands is known and felt : as the war waxes warmer, the sacrifice becomes greater, and it ceases at once with the cause which occasioned it. On the other hand, the loan system disguises the real extent of the evil : the sacrifices which it calls for—at least the *ostensible sacrifices* which it calls for—are at first trifling ; but they are cumulative, and they are permanent Hence, at the conclusion of a war, the nation finds itself weighted with a load of debt which it cannot shake off; and peace presents the prospect of the incumbrances of war without its excitement. On the outbreak of hostilities, when national indignation is at its height, it requires some virtue in a statesman to resist the fatal facilities of the loan system. The weapon seems so easily wielded, the immediate effort is so trifling, that we are tempted to strike when there is no occasion to strike; and it is not till the contest is over that the nation becomes sensible, when too late, of the exhaustion which its constitution has undergone in the mean time. " By the practice of perpetual funding," Adam Smith observes, (p. 417,)* " the country is enabled with the smallest possible increase of taxes, to raise annually the largest possible sum of money In great empires, the people who live m the capital, and m the provinces remote from the scene of action, feel, many of them, scarcely any mconveniency from the war; but enjoy at their ease the amusement of reading m the newspapers the exploits of their own fleets and armies. To them this compensates the small difference between the taxes which they pay on account of the war, and those which they had been accustomed to pay in times of peace They are commonly dissatisfied with the return of peace, which puts an end to this amusement, and to a thousand visionary hopes of conquest and national glory from a longer continuance of the war " It is true that, since these words were written, the greater diffusion of enlightenment, the juster

* McCulloch's edition, 1850.

appreciation by the public of the value of military glory, together with other causes, have contributed to render them less applicable to the present times than to those to which they were addressed. But even in these days, should the martial ardour of the community be once again awakened, the description would, perhaps, still be found sufficiently accurate.

Secondly, on *economical* grounds, the question between the system of government loans, and that of raising the supplies withm the year, has been warmly debated. In estimating the effects of these two plans respectively, upon the industrial and commercial interests of the country, it is important to remember that the question does not lie—as the received phraseology might lead us to suppose-between the advantage of raising the supplies *within the yea?**, and that of spreading the supplies *over a number of years* Whether we raise the required sum by increased taxation or by government loan, in each case equally—as has been urged by Dr Chalmers—the supplies are raised within the year. Whatever is consumed and destroyed by the war is so much wealth taken from the country, raised by the government in that year in which the destruction takes place. This, though sometimes overlooked, is self-evident the moment it is stated. The question, therefore, is, by which of the two plans, by means of which it is proposed that the necessary abstraction of wealth should be accomplished, will the minimum of inconvenience and injustice be inflicted on the community at large ? By which of the two courses open to us, will the burden be distributed with the greatest equality and fairness over the several classes in the State ?

Now, in general, and with some exceptions to be noticed hereafter, the operation of the two systems seems to be this:—when the necessary abstraction of wealth takes place through increased taxes, the quantity abstracted is for the most part taken from the *income of the country* Capitalists are notoriously reluctant to trench upon their capital; the effect, therefore, of increased taxation would be to make them economise from their private expenditure, and the saving thus effected would form the fund to be consumed and destroyed in the maintenance of the war; just in proportion, therefore, as the taxes were levied fairly over the whole population, would the cost of the war be fairly and equitably distributed On the other hand, when the abstraction takes place through government loans, it is withdrawn from the *capital* of the country; but the capital of the country—at least all that portion of it which is not fixed capital —is only another name for the revenue of the productive classes: it is the fund by which they are employed, and from which their incomes are drawn. So far, therefore, as the war supplies are raised by government loans, so far are they taken from the revenue of one portion of the community only, and that portion, too, which is least able to bear any increased pressure. I do not mean to contend that by the loan system the whole evils of the war are concentrated upon the pioductive classes; my assertion is that the *evils produced by the necessary abstraction of wealth* which takerf place, are by this system thrown exclusively upon them. Capitalists will, no doubt, suffer from war in common with the mercantile classes generally,—m the closing of their usual markets, in the failure of their foreign customers, in their quality of tax-payers towards the increased interest which each new loan requires. But, in the abstraction of wealth through a government loan, there is nothing that I know of calculated to prejudice the interests of capitalists: on the contrary, so far as *their* interests are concerned, the effects of extensive state borrowing seem decidedly beneficial It opens to them a new mode of investment, which had not existed before; and, as the competition for loans advances the interest on capital, they receive an increased return on their advances. Further, this system has the effect of depressing wages; and thereby also benefits capitalists, since reduced wages imply increased profits The operation of the loan system upon w^esTi^oFa"Two^loIS character. On the one hand, the abstraction of so large a quantity of capital from the fund which supports productive industry, diminishes the means at the disposal of the country for the employment of labourers: on the other, inasmuch as a portion of the capital thus withdrawn is applied to the payment of soldiers and sailors, the system to this extent lessens the supply of labour. On the whole, however, there can be little doubt that the tendency of state borrowing to lower wages, by the abstraction of capital, must preponderate over its tendency to raise them by narrowing the labour market. The same proportion of such funds is clearly not applied to the payment of wages in the one case as in the other; a large quantity is expended in the purchase of warlike and naval stores, and in repairing the ravages of war: a large portion—if we are to judge from the experience of former wars—would go to the subsidizing of foreign states.* Further, it is to be remarked

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* The doctrine advanced m the foregoing pages,—that it is the tendency of an extensive application of government loans to bear seveiely on the interests of the industrious classes, and to depress the wages of labour—though coming directly fiom the elemental y principles of political economy, and suppoited by the first economical authorities—is yet, I believe, completely at variance with the notions which aie prevalent upon this subject—notions which have been denved from certain traditionaiy impressions with reference to a supposed state of pio&penty, commeicial, agiicultmal, and mdustnal, during the last war. What the facts of that penod really were, and how far these f icts countenance the theories which have been built upon them, those who have studied Mr. Porter's " Progiess of the Nation," or Mi. Tooke's " History of Prices," are sufficiently aware. For those, however, who have been content to accept the current traditions, which would seem to negative the doctrine which has been advanced with refeience to the tendency of go\eminent loans, it may be well to add a fewwoids

1st.—It must be conceded that such evidence as is attainable upon this subject, (and which is veiy fai from being complete or satisfactory), goes to show that the rate *of money wages* duung the war was, *upon the whole,* rather higher than during the subsequent peace. This will appear fiom the following aveiages, which I have calculated from the &tati&ticb upon this subject given in Poi tei s Tables, the same that the capital thus taken from the productive industry of the country, and expended m warlike operations abroad, is unproductively spent—it is utterly destroyed; and, instead of reproducing itself with a profit,—as would have been the case had it been left to fructify with its original owners—it leaves no result except the necessity of a similar draught for the ensuing campaign upon the productive resources of the country, to feed a similar destruction.

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figures, too, will also show how little the exaggerated opinions which are generally entertained are supported by facts

The average weekly wages of Carpenters m Greenwich Hospital from

		s.	d.
1800 to 1815, both inclusive, was	_.	30	4
1816 to 1836 ,, ,,	--	31	9
Average weekly increase during peace	..	1	5

The average weekly wages of Bucklayers in Greenwich Hospital from

		s.	d.
1800 to 1815, both inclusive, was	_.	29	8
1816 to 1836 „ „	.-	29	0
Average weekly fall during peace	...	0	8

The average weekly wages of Handloom Weavers in Manchester from

		s.	d.
1810 to 1815, both inclusive, was	_.	13	9
1816 to 1825 „ „	. .	9	4
Average weekly fall during peace	_.	4	5

The average weekly wages of Labouiers in Manchester fiom

		s.	d.
1810 to 1815, both inclusive, was	..	15	0
1816 to 1825 ., „	-.	14	5
Average weekly fall during peace	..	0	7

The average weekly wages of Labourers in Bedfont, Middlesex, from

		s.	d.
1811 to 1815, both inclusive, was	_.	16	10
1816 to 1830 „ „	..	12	5
Average weekly fall during peace	..	4	5

The average weekly wages of Compositors (morning papers) in London fiom

		s.	d.
1800 to 1815, both inclusive, was	..	34	3
1816 to 1836 „ „	..	36	0
Average weekly increase during peace	..	1	9

The above are a fair specimen of the whole tables They show that, while in some departments of industry there has been a, rise, on the whole, the scale, as measured m money wages, has declined since the war.

2nd.—It is to be observed tbat the hig;h rate of money wages during the war is, to a certain extent, explained by the depreciation of the cuirency, which, in the latter years of the war, reached the amount of twenty per cent, and upwards , but it is completely accounted for by reference to the unprecedentedly high lange of prices for food which ruled dm ing that period, aiismg from a frequent recurrence of deficient harvests, to the extent of 11 in 22 years, and which, operating thiough the provisions of the Poor Law, forced up the minimum rate of wages to at least what was sufficient to support life.

But, 3rd, tJiej3ojnJjLnj^^^ e is not the rate of *money wages* during thg—war, but therate^of *real wages*, as indicated by the command of the labouring classes over tTienecessaries and comforts of existence. In speaking of the capital abstracted by a government loan, it was not to the amount of com which represents that capital that the effect of depressing wages was attributed. In the shape of coin, perhaps, but a small portion of it may leave the countiy , it is to the capital embodied in the

In the above reasoning, however, it is assumed—and the whole cogency of the argument depends upon the assumption—that the capital raised by government loans is capital which would otherwise have found productive employment in the country. It has, however, been denied that the funds carried off by government loans, come *necessarily* from the capital productively employed withm the country. There is a large portion of the capital of the United Kingdom which goes abroad every year for foreign investment. The writer of a leading article in the *Times* estimates the amount that left the country last year at between ten and fifteen millions. Now, if the system of government borrowing were so managed that the loans raised for war purposes merely absorbed that portion of capital which would otherwise have left the country to be invested in foreign undertakings—provided the practice of borrowing were confined within these limits—it would certainly not dimmish the means at the disposal of the country for the employment of labour; it would, therefore not lessen the demand for labour, and consequently would not produce those injurious effects upon the industry of the country which have been attributed to it. The question then arises, can this surplus capital, which overflows into foreign countries, be drawn off for the purposes of the government, without disturbing the operations of capital productively employed within the country ?

Mr. J. S. Mill is of opinion that this may be done; and that an index to this limit—this precise point up to which government

goods of all kinds sent abroad for the support of our armies, and for which no value is leturned, that the injurious effects alluded to were ascribed Measured by this standard, there is no doubt at all that wages during the war weie extremely low, and the condition of the industrious classes generally very inferior to their condition since (as is sufficiently evidenced by the fiequent discussions which took place in paihament on the prevalent distress,—by the fact that distillation from corn had been prohibited during one-third of the whole period of the war,—and further, by reference to the poor rates, which between 1803 and 1812 had undeigone an increase of 62 per cent) This was peculiarly the case just before the peace of Amiens, and again before the final conclusion of the war—just the penods when the system of government loans was earned out on the most extensive scale Indeed, Mr Porter expiessly attributes the sufferings of the lower classes upon these two occasions to the enoi mous consumption of wealth caused by the wai , though other authonties have considered that the extierne scarcity of provisions at these two periods affords a sufficient explanation of the geneial distress. All, however, that I am concerned to show is, that the facts themselves are not inconsistent, but, on the contrary, quite m keeping with the views advanced with reference to the tendency of government loans. In the absence of conclusive statistics, the following remarks from Mr Poiter upon the subject undei consideration, will perhaps be thought satisfactory. "It will be apparent from the examination of the foregoing tables that, although at ceitain seasons all those who live by daily wages must have suffered pnvation, yet, with few exceptions, their condition has, in the course of yeais, been much ameliorated. The exceptions heie alluded to are handloom weaveis, and others following analagous employments, conducted in the dwellings of the workmen. The diminution of weekly earnings of other parties has been but small m any case, and ceitainly not commensurate with the diminished cost of most of the necessaries of life—comprehending in this list most articles of food and every article of clothing By this means they have acquned, with then somewhat diminished wages, a much gieater command than foinierly over some of the comforts of life."—*Progress of the Nation,* p 452.

would the rate of interest not rise abroad

borrowing is innocuous—is to be found in the current rate of interest: m other words, he considers that government might raise by loan the capital which annually goes abroad for foreign investment, and which the *Times* estimates at from ten to fifteen millions, without interfering with the operations ot trade at home, and without raj^g^^jra^te^of^injtei^es^. Here are Mr. Mill's words, (Pol. Econ., vol. 2, p. 448) : "When the progress of accumulation has reduced profits either to the ultimate or the practical minimum—to the rate less than which would put a stop to the increase of capital, or send the whole of the new accumulation abroad, government may annually intercept those new accumulations, without trenching on the employment or wages of the industrious classes, in the country itself, or perhaps in any other country. To this extent, therefore, the loan system may be carried without being liable to the utter and peremptory condemnation which is due to it when it passes this limit. What is wanted is an index to determine whether in any given series of years, as during the last war for example, the limit has been exceeded or not. Such an index exists, at once a certain and obvious one. Did government by its loan operations augment the rate of interest ? If it only opened a channel for capital which would not otherwise have been accumulated, or which, if accumulated, would not have been employed within the country; this implies that the capital which government took and expended, could not have found employment at the existing rate of interest. So long as the loans do no more than absorb this surplus, they prevent any tendency to a fall in the rate of interest, but they cannot occasion any rise. When they do raise the rate of interest, as they did in an extraordinary degree during the last war, this is positive proof that government is a competitor for capital with the ordinary channels of productive investment, and is carrying off, not merely funds which would not, but funds which would, have found productive employment within the country.'\

It is assumed by Mr. Mill, in this passage, that it is possible for government to compete m the money market foi capital, " which *would not* have found productive employment in the country," without at the same time competing for capital which *would* have found productive employment in the country; in other words, that government may compete against borrowers for foreign speculations without competing against borrowers for home speculations. The value of his index depends upon the possibility of making this distinction. I confess I am quite unable to imagine how this is to be effected, unless it were possible to exclude borrowers for foreign purposes from the money market by Act of Parliament—a condition which Mr. Mill certainly did not contemplate.

A given rate of interest implies a certain relation between the demand for loans and the supply; if, other things being the same, an additional borrower, in the character of government, comes into the money market, it is quite inconceivable that the rate of interest should not at once rise in proportion to the energy of the competition; it is quite unintelligible how government could out-bid the foreign borrower to such an extent as to carry off the capital which would otherwise have gone to him, without, at the same time, outbidding a certain proportion of home borrowers. If government were to come now into the market to borrow ten or fifteen millions—the sum which probably leaves the country yearly,—the effect, I should suppose, would be that the sum thus raised would be withdrawn, partly from what would otherwise have found investment abroad, partly from what would otherwise have been employed at home Government would have to raise its rate of interest up to that point at which borrowers to the amount of ten or fifteen millions would decline to raise theirs. Whether the borrowers thus out-bid by government were foreigners or British subjects, or in what proportion they were either, Avould surely be a matter of accident, and could only be conjectured.

For these reasons, it appears to me that the obj'ections which have been urged against the loan system, on account of the encroachment which it makes on national capital, and the evils which thence result to the industrious classes, hold good under all circumstances; whether the country be able to employ all its capital within the limits of its own territory, or export a portion for investment to foreign countries. To diaw off what Mr. Mill calls the overflowings of national capital, without by the same operation disturbing the whole contents of the reservoir, is, so far as I can see, practically impossible.

The considerations so far adduced in the discussion of this question, have been such as apply to it regarded in a general way, and without reference to the particular circumstances of the time and country m which it is proposed that the principle should be carried mto effect The question, however, does not admit of being decided by merely general considerations. A further examination will show that there are certain special conditions to be taken into account, which, m the application of the principles to particular cases, will suggest certain limitations, to which I proceed now to advert. In the foregoing observations it has been throughoiit assumed that the wealth abstracted by government loans is drawn from the capital of the countrv; and, on the other hand, that the wealth abstracted by taxation is drawn from the income of the country; and the chief advantage which the latter system has over the former was shown to consist in this circumstance. But it is quite certain that the extent to which savings will be made from income has a limit; and, if this limit be passed m taxation, people will either pay taxes directly from their own capital, by the withdrawal of some which was before employed m productive operations, or (what m its economical effects amounts to the same thing) they will take the place of government in the loan market, and raise separate loans for themselves according to their several necessities. Suppose, for example, to take an exaggeiated case, that it were necessary to raise suddenly forty or fifty millions in the year for war purposes, I should conceive it would be vam to expect to raise such a sum, in addition to the ordinary revenue, by any means, without trenching to a considerable extent upon capital now productively employed. In such a case, the conditions of the question become altered, and the issue to be decided would be: by what means can this sum—which will *in any case be* withdrawn from productive employment—be withdrawn, consistently with causing the least possible disturbance to the ordinary course of trade 'and industry ? Now, if capital is to be trenched upon, if a debt is to be incurred, it is surely much better that this debt should be incurred by the country in its collective capacity, as represented by government, than that the attention of individuals should be diverted from their ordinary occupations to provide for government demands. Government can raise the whole sum required by a single operation ; government can give better security than any individual; and, therefore, for the whole class of borrowers, can procure bettei teims than even the most solvent of the class could procure for himself. The derangement, therefore, which a single loan thus raised would produce amongst the commercial and industrial classes, would be greatly less than that which would be produced by a number of small loans of the same aggregate amount, raised by individual borrowers; the large majority of whom would have but indifferent security to offer, and would therefore suffer proportionately in the exorbitancy of the interest which they would be forced to pay. It thus appears that there is a limit beyond which taxation cannot, in this view, be prudently carried, beyond which the evils of increased taxation preponderate over any that might be anticipated from an increase of the national debt. Theoretically, this limit is to be found at that point at which the average community, instead of saving the taxes from theii expenditure, would either draw them from their own capital, or, by becoming borrowers, from the capital of others.

The abstract view of the question, and the conclusions thus arrived at, must again be modified in their application to practice, by the *nature* of the taxes to be imposed, in the event of its being resolved to raise the requisite supplies by taxation. The only evils of taxation hitherto taken account of, were such as aiise from the loss of wealth to which the country would thus be subjected—a loss which would of course be measured by the extent of the sum extracted from the community. It is scarcely necessary to say, however, that the *amount* of wealth which a tax carries off, is no proper measure of the mischief it occasions Taxes are objectionable, not only by reason of the amount of wealth which they extract, but also by reason of *the manner* m which they effect that extraction. The financier would, of course, in the first instance, have recourse to those taxes which he considered least objectionable j when these had been pressed to the utmost, he must become less scrupulous; each step m the progress of taxation would bring him upon an impost more mischievous than the last; and thus, as the *quantity* of wealth raised by taxation increased, the *means* by which that increasing quantity was raised would become at each step more and more pernicious The income tax, for example, would come first; the assessed taxes, probably, next; after a while, indirect taxes must take their turn,—for, though *these* are to be " the last devoured," yet it is plain that Mr. Gladstone contemplates the possibility of putting them, one day or other, m his bill of fare.

To strike the balance fairly, therefore, between the two plans,—that of raising the supplies by government loan, and that of raising them by increased taxation,—it would be necessary to consider, not only_thequantum of taxation, but the quality of it; not only the amount rais^'^b^taxartiorr, b^t"trle~charactei oT tKeTaxes by which that amount is to be raised. The amount which a tax yielded might be such as the community could well spare from its income; yet if the tax were of such a nature as to interfere seriously with the processes of production; to load the springs of industry, or to force capital into unprofitable channels; a revenue supported by such taxes, without encroaching at all upon capital, might nevertheless be nrach more injurious to the industrious classes themselves, to the community generally, and even to posterity, than a revenue supported by the most profuse system of government loans. Thus with each new tax resorted to in support of a war revenue, there would be introduced into the question a new complication; fresh problems would be started, the solution of which would involve the opening up of the whole subject of taxation. I can here do no more than indicate their nature.

It appears, therefore, that in proceeding to raise the supplies withm the year by taxation, we should be met by two principles of limitation—one arising from the *extent* to which taxation was carried, the other from the *quality* of the taxation imposed. The amount raised in this way may be so great, or the means may be so pernicious, that the resource of government loans may come to present the fairer and least objectionable alternative. But the important practical point for the consideration of statesmen is that these limits are still far removed. This will be sufficiently evident when we consider the amount of our taxation at present, and compare it with what the nation has borne at other periods, and, therefore, is competent to bear again Let us take for example the three last years of the war, 1813, 1814, and 1815. The average annual taxation for these three years amounted as nearly as possible to seventy millions. Allowing 20 per cent for the depreciation of the currency at that time, arising out of the operation of the Bank Restriction Act, this sum would be equal to 56 millions of our present currency. Now, the average population of the United Kingdom during these three years was, m round numbers, about 19 millions. It is at the present moment about 28 millions. Assuming, then, the wealth of the nation to have increased in the same proportion as the population—that is to say, assuming the ability of each unit of the community at present to bear taxation to be, on an average, the same as in the years 1813,1814, and 1815, it would follow that the nation could now support a revenue of 82-g-1 millions, without greater inconvenience than it cost to support one of 56 millions at the close of the war (or as it was in the depreciated currency, of 70 millions). In other words, 30 millions might be added to our present taxation before the pressure on our resources would equal that which was felt at the close of the war. In fact, however, this is stating the case much too unfavorably. There can be no doubt that the wealth of the country has increased since 1815, in a ratio much greater than the population. What this ratio of increase has been can only be estimated approximately, but the data for such an estimate exist. To state them at length here would require me to load my pages with more figures than I have space for. I can, therefore, only refer those who desire information upon this point to the second chapter of Mr. Norman's work on taxation. On perusing it I am sure they will be satisfied that instead of 82J millions, the country could now yield a revenue of 100 millions with less difficulty than it yielded 56 millions in 1815. That the taxation of that period, both in point of amount, and in respect of the nature of the taxes imposed, did not transcend the limits which I have indicated, as those beyond which taxation cannot be prudently carried, I am certainly not warranted in assuming, nor have I any means of ascertaining But without pretending to such accuracy, when the above facts are considered, and when, moreover, we remember how much juster are the notions of finance which now prevail m parliament, and, therefore, how much more skilfully the engine of taxation would now be used than it was during the last war, there will, I should think, be little reason to doubt that the margin that still lies open for legitimate taxation is large, and the limit far distant at which the alternative of the money market would be justifiable.

I have next to consider the financial arguments that apply to this question. It would certainly be unfair to conclude absolutely against the loan system from our experience of its effects, as illustrated in the state of our finances during the last war; since undoubtedly the extravagance of management, and the false theories with which it was complicated, were calculated greatly to aggravate the evils inherent in the system itself. Making all allowance, however, for the influence of such disturbing forces, the objections must be strong against a system that could produce such general results as the following.

In a Treasury Account published in the year 1828, that was laid before a committee of finance, (and which I have taken from the appendix to Sir H Parneli's work on Financial Reform) there is a column showing the general annual expenditure from the 5th January, 1793, to the 5th January, 1816; including the charges of civil government, the whole war expenses, and the interest of the debt as it stood m January, 1793; and exclusive of the Sinking Fund, and of the charge upon all loans raised since 1793.

The total amount of this expenditure during the period of twenty-three years was, . . £1,254,107,261

In another column we are given the annual nett revenue paid into the exchequer, during the same period. The total of this column is, . . 1,081,513,382

Deducting this latter amount from the former, we get a balance of £172,593,879

which balance of about 172 millions and a half represents the sum by which the nett taxation of that period fell short of the actual expenses of the war and civil government, together with the interest on the debt due, January, 1793. In other words, if government during the last war had raised by increased taxation 172 millions and a half, (or, what amounts to the same thing, seven millions and a half annually), more than actually was raised, the debt m 1816 would have been no greater than it was in 1793 Contrast these figures now with the actual state of the debt in 1816 :—

The amount of unredeemed debt of Great Britain m 1816, (as given m the appendix to Dr. Hamilton's woik on the National Debt, p. 324) was £714,371,111

Deducting from this the debt due, 5th January, 1793, viz 232,064,743

We get a balance of £482,306,368

Instead, therefore, of a balance of 172 millions and a half, which I have shown would by increased taxation have made the revenue equal to the whole necessary expenses of that period, we have been left by the loan system which was pursued, to encounter an increase of debt, to the amount of nearly 482 millions and a half. Now, the difference between these two sums, is £309,712,482 ; this difference, therefore, or the interest upon it, in perpetuity at 3 per cent , viz., £9,291,374, represents the burden which has been imposed on the nation by the loan system, as it was carried out during the last war, over and above what would have been required had the requisite sums been raised each year, within the year, by increased taxation.

And there is, moreover, every reason to suppose that the nation could have borne the increased taxation which such a course would have required—that is, could have borne an increase of taxation equivalent to an annual average of *1* millions distributed over that period. This is, I think, to be inferred from the following facts:—The most rapid accumulation of the debt took place during the early period of the war from 1793 to 1799 The average annual revenue of that period was only about 18 millions. Mr. Pitt laid on his war taxes in 1798, and the revenue of 1799 was upwards of 30 millions. Had these war taxes been laid on when the war commenced, they would have gone far towards covering the whole additional war expense during the interval. Further, from the year 1790 the revenue gradually advanced till it reached, in 1816, a sum of upwards of 70 millions. No doubt the ability of the nation to bear taxation increased considerably during this penod; but it can hardly be supposed to have increased at the rate at which taxation increased. The revenue of 1816 was nearly four times the revenue of 1797; but it would be quite preposterous to say that the whole income of the country had quadrupled itself in that period—especially when we bear in mind that during that time the country was supporting the exhaustion of the greatest and most costly war ever waged. It is therefore beyond doubt that the country might have supported, in the earliest stage of the contest, a much heavier taxation than it actually did support; and therefore, that a large portion, if not the whole, of the loss of £309,000,000 incurred by the loan system, might have been avoided.

It appears, therefore, that the method of meeting the expenses of war by government loans—subject, of course, to the exceptions arising out of special circumstances already alluded to—stands condemned on moral, economical, and financial grounds; and it is satisfactory to find that those just and sound principles of political economy, which have hitherto met with little support beyond that which they received in scientific treatises, have at length so diffused themselves amongst the general community, that a Chancellor of the Exchequer not only adopts them without odium, but propounds them amidst the applause of the House of Commons " It is impossible," said Mr. Gladstone, m his financial statement, " for the government, for this house, or for the country, to give an absolute pledge, or to record an immovable resolution, that the expenses of the war shall be borne by additions to taxation; but it is possible for us to do this: to put a stout heart upon the matter, and to determine that, so long as these burdens are bearable, and so long as the supplies necessary for the service of the year can be raised within the year, so long we will not resort to the system of loans."

This is surely distinguished testimony to the truth of principles advocated by several generations of political economists—a signal triumph of true theory over vicious practice and precedent, though fortified by self-interest, prejudice, and authority; a remarkable illustration of the progress, slow, silent, but certain, with which ideas, started at first in the closets of retired thinkers, work their way at length into the outer world, and mix themselves with life and action.

" It is not however to be understood," to quote the language of a writer in the *Spectator*, "that the Chancellor of the Exchequer is debarred from claiming the assistance of our heirs, if the justice of the case should prove that the common interest of ourselves and our progeny would suffer by stinting ourselves. In such case, the loan is exactly like that which a landowner incurs for the benefit of his estate, and which his heir will pay as cheerfully as the original borrower; because, in truth, a larger share of the advantage will accrue with the developement of the estate. This consideration would form a justification of the loan not less powerful in pure reason, than that absolute necessity which Mr. Gladstone contemplates as possibly driving him to the resource."

We are not then precluded, either on theoretical or practical grounds, from entertaining the question of loans I shall pioceed therefore to examine, as briefly as I can, the several forms under which this system for the raising of supplies may be carried into effect.

Since the country last had recourse to credit to meet the demands of a war expenditure, the financial problem has been greatly simplified. At the close of the last war, the doctrine of the expediency of paying off the National Debt by a sinking fund put out at compound interest was very generally entertained. The doctrine is now very seldom treated with seriousness, except, perhaps, in the pages of Sir A. Alison, where, with so many other discarded theories, it has found a last abiding place. Perhaps the most remarkable circumstance connected with this renowned piece of financial legerdemain is, that a device, the futility of which, now that it has been exposed, is apparent to the dullest understandings, should have once imposed upon such men as Dr. Price, Mr. Pitt, and Lord Lansdowne, and, with few exceptions, on all the statesmen of those times. Mr. Pitt describes it (Speeches, vol. 1, 317) as " the plan which has been long the wish and hope of all men; and I am proud to flatter myself," he says, "that my name may be inscribed on that firm column now about to be raised to national faith and national prosperity." Lord Lansdowne, then Sir Henry Petty, when introducing his financial scheme of 1807, thus speaks of it:—"There could be but one opinion in the House on that subject. It was owing to the institution of the sinking fund that the country was not charged with a much larger amount of debt. It was an advantage gained by nothing, and a system likely to be attended with much greater advantages. Therefore, independent of considerations of good faith, which should induce the House to hold and cling to a system once adopted, it was pledged to support it, having had positive trial and experience of its utility." It is somewhat remarkable that Dr. Price, the great champion of the sinking fund, should have admitted that the principle was inapplicable to the discharge of private debts. It is difficult to imagine on what grounds he based the distinction. The only real difference between a public and private debt is the extent of the sum; and to suppose that the principles of arithmetic should vary according to the figures with which they have to deal, does imply a most extraordinary conception of the nature of an exact science. It would not be more absurd to suppose a similar variation m mathematics ; to suppose, for example, that the three angles of a large triangle were greater than the three angles of a small one.

Divested of the mystifications with which the sinking fund has been surrounded, it amounts simply to an attempt to pay off a debt by contracting a new one. If it were really possible to discharge a debt of, say £1,000 annually contracted, by the simple plan of borrowing an additional hundred, and putting this hundred out at compound interest, the sinking fund theory would certainly deserve all the eulogiums which have been lavished upon it. It would be literally " an advantage gained by nothing." There would be nothing to prevent any man from enjoying an income to this amount, or, in fact, to any amount he pleased. So convenient a doctrine v ould well merit support, and, doubtless, would be extensively carried out m practice. Perhaps it is superfluous to point out, that the fallacy consists m overlooking the fact, that the compound interest on the extra hundred pounds borrowed would accumulate against the debtor as well as in his favour. Now, supposing the interest accumulating against the borrower to be the same as the interest accumulating in his favour, or, m other words, supposing the debt to be finally redeemed in terms as favourable as those m which it was originally contracted; and, supposing further, the management of the sinking fund to be carried on without expense; under these circumstances, the process would be simply nugatory. When the debt, incurred for the purpose of maintaining a sinking fund, was paid off, we should be in precisely the same position as if it had never been incurred at all. In point of fact, however, the process was far from being nugatory. None of these conditions were fulfilled m practice. I have computed the loss arising from the failure of one of them ; the loss proceeding, namely, from the circumstance that the debt paid off by the sinking fund was redeemed when the funds were at a higher price than when the debt was contracted. The amount of this loss is £15,769,943.* Taking all the circumstances into account, and considering that portions of this sum were accumulating at compound interest, Dr. Hamilton is of opinion that the total loss sustained by the sinking fund fell little short of £30,000,000.

It would be idle to pursue this question further, and fruitless to attempt an examination of those schemes of finance which have been based upon this principle of a sinking fund, and which, at the close of the last century and the beginning of the present, were introduced under the auspices of Mr. Pitt, Sir Henry Petty, and Mr. Vansittart. None of these schemes are likely to be revived, and the sinking fund itself stands condemned by public opinion, and condemned by act of parliament.

* The data upon which the calculation may be made in this case are as follows —Considering for simplicity the debt contracted during the war, as well as the debt paid off by the sinking fund, as all leduced to 3 per cents , then the whole amount raised during the war (taking the figures from Hamilton on the national debt, page 197, third edition), would be to the whole capital funded in the ratio of 1 1*71. But the whole sum expended by the Commissioners of the Sinking Fund is to the whole capital ledeemed as in the ratio only of 1 1 62 Therefore for every pound borrowed for the purpose of maintaining the sinking fund, there was a loss of 09 of a pound, oi multiplying this fraction by the sum actually expended by the commissioners, viz , £175,221,593, we arrive at our actual loss of £15,769,943.

In all future discussions respecting the reduction or discharge of the national debt, it will, I suppose, on all sides be conceded as an axiom, that the efficacy of a surplus revenue cannot possibly be enhanced by any artifice in the mode of its application, or, in the language of Dr. Hamilton, that " its efficacy in the discharge of a debt depends solely upon the proportion which the surplus bears to the debt, and the length of time during which the surplus is thus applied, and upon these conditions alone."

Government credit has been exercised under various forms ; these may be divided into annuities for lives, annuities terminating at a fixed period, and perpetual annuities or funding. I omit any consideration of exchequer, navy, or ordnance bills, and other kinds of unfunded debt, which are resorted to for temporary purposes, as well as of the plan of government lotteries, which is not likely again to be adopted. The plan of raising money on terminable annuities was strongly advocated by Dr. Price and Sir Henry Parnel. The advantages, indeed, which it possesses are real and obvious: the principal is that, m process of time, the debt gradually works out its own extinction Notwithstanding this recommendation, however, the plan of terminable annuities, whether for lives or for fixed periods, has never been a very favourite instrument of finance, and has seldom been used except as a supplement to perpetual annuities. Indeed, if terminable annuities were adopted to any large extent, the objections against them would be serious. The debt thus contracted has the peculiar disadvantage of being irredeemable ; and, therefore, so far as the debt is constituted in this manner, the public have it not m their power to take advantage in the full rate of interest during peace. Dr. Hamilton tells us (p. 255) that this " was heavily felt during the reign of George I. A large part of the debt contracted in the two former reigns was upon annuities, and when a general reduction of interest took place, a large additional capital was granted to the holders of these annuities above the sum originally advanced, to induce them to convert their annuities into redeemable stock." Irrespective, however, of such special objections, the nature of terminable annuities is such as to disqualify them from ever becoming a convenient or popular kind of stock m this country. The general objections against them are thus stated by Adam Smith, p. 417* :—" In England, the seat of government being the greatest mercantile city in the world, the merchants are generally the people who advance money to government. By advancing it, they do not mean to dimmish, but, on the contrary, to increase their mercantile capitals; and unless they expected to sell with a profit their share in the subscription for a new loan, they would never subscribe But if, by advancing their money, they were to purchase, instead of perpetual annuities, annuities for lives only, whether their own or those of other people, they would not always be so likely to sell them at a profit; . their real value begins to dimmish from the moment they are granted, and continues to do so as long as they subsist It can never, therefore,

* MpOnilnrVs prfiHmi. 1 fi.HO.

make so convenient a transferable stock as a perpetual annuity, of which the real value may be supposed to be always the same or very nearly the same." These remarks were directed against annuities for lives, but it is evident that they are equally applicable to all kinds of terminable annuities.

It is therefore to funding, notwithstanding the many objections against it, that we may expect the country will turn, as its mam resource, in the event of its being again under the necessity of boriowing. Now, with reference to funding in perpetual annuities, the one important question to be decided is with regard to the merits of what is called the system of funding by increase of capital. Shall we fund at a low nominal rate of interest, at the expense of increasing the nominal capital of our debt, or shall we, by giving nominally as well as really the market rate of interest, or some consideration equivalent to it, keep the funded capital of our debt down to the limit of the capital which we borrow? In the early part of the history of our national debt, the capital assigned to the public creditor did not generally exceed the sum advanced by him. If the interest was not sufficient to induce capitalists to advance the necessary sums, annuities for lives, or terms of years, or perhaps tickets in government lotteries, were added as a further bait to lenders. In later times, however, this practice has been departed from: and, in general, instead of varying the interest or other inducement to suit the state of the money market, the practice has been to borrow at a low nominal rate of interest, irrespective of the conditions of the money market, and to make the variations in the amount of the capital stock funded. Thus, though the rate of interest during the last war was constantly upwards of 5 per cent., the chief portion of the debt contracted during that time—that is to say, about 80 per cent, of the whole—was contracted m stock bearing 3 per cent, interest; while the capital funded in this way amounted to about 70 per cent, beyond what was borrowed or needed for the purposes of the war

This policy of funding in low stocks by increase of capital was generally approved of by public men during the last war. Ministers and opposition alike admitted the principle "that it was the duty of a financier to raise the loan at the least annual expense it could be procured for, without regard to the amount of nominal capital." The principle is now, I believe, generally condemned by the best financial authorities Mr McCulloch pronounces it " by far the greatest error committed m the financial affairs of the empire since the Eevolution." It will not be difficult to justify this censure. It may perhaps be supposed that, so long as the principal of the debt is unpaid, the amount of funded capital is unimportant; but this is a mistake. Of the 3 per cents funded during the last war but an insignificant portion has been paid off; nevertheless the loss, which the country has sustained by funding in the 3 per cents, with an increase of capital, has (as will be shown presently) been very considerable. This arises from the circumstance that, from the terms in which the debt has been contracted, a reduction in the interest cannot be effected till the funds rise above par. Now, the 3 per cents will not rise above par, till the interest on money falls below 3 per cent; whereas, in order that the 5 per cents should rise above par, it is only necessary that the interest on money should fall below 5 per cent. The consequence is that, as soon as war has been concluded, and the return of trade to its normal condition brings down the interest upon money, it at once becomes possible to reduce the interest on the high funds. Thus, the interest on the 5 per cents funded during the last war was, m the year 1822, reduced to 4 per cent, (at least, nominally; m reality, to 4*2 per cent; £105 capital in the new 4 per cents being substituted for £100 capital in the old 5 per cents) Again, m the year 1830, the interest was reduced to 3-^ per cent ; again, in 1844 to 3J per cent.; and, finally, m the present year, it will fall to 3 per cent ; whereas, during all this time we have been paying on the capital borrowed m the 3 per cents the same interest which we were obliged to give in the time of the war, when money was scarce, and consequently interest was high. Further, it is to be observed that all that portion of the debt redeemed by the Commissioners for the reduction of the National Debt, is redeemed at the current price of stock. Now the price of stock bearing a high rate of interest, as for instance 5 per cent, stock, can never rise very much above the price at which it was originally funded; whereas the price of stock bearing a low rate of interest may rise very considerably above its original price. The loss, consequently, upon the redemption of the low stocks will be proportionately greater Thus, supposing £100 of the 5 per cent, stock to have sold for £95 m the market at the time the loan was negotiated, m this case £100 of the 3 per cents would have sold for £57. Under these circumstances the utmost loss that could accrue upon the redemption of the 5 per cents would be £5 for each £100 redeemed; whereas upon the redemption of the 3 per cents there might be a loss to the extent of £43 for each £100 redeemed.

These circumstances then, viz the prospect of permanence in the rate of interest, and the chance of selling out at an advanced premium,—constitute to lenders the attraction of the low funds, and dispose them to give proportionately a higher price for the 3 per cent, stock than for 5 per cent stock, or, what amounts to the same thing, dispose them to be content with a lower rate of interest on the sums they advance in the former funds than in the latter. And it is this lower rate of interest which forms the inducement to government to borrow in these funds It is not tiue then, as Dr. Price says, that for the excess of capital funded "nothing is gained" to the country. Something undoubtedly has been gained, namely, the difference in the interest on the sums advanced in the three per cents as compared with the interest on equal sums advanced in the 5 per cents, an advantage which continues as long as the 5 per cents remain unreduced. The general effect, in a word, is that the nation, at the expence of a future encumbrance, obtains the benefit of an immediate accommodation. The charge which I bring against the system is that the accommodation is temporary and trifling, whereas the encumbrance is lasting and serious. This, I think, is borne out by the following facts

There is some difficulty in estimating the cost to the country of the money raised in the several kinds of stocks, owing to the manner in which most of the loans were negociated, the same loan being frequently made in funds of different kinds, and not unfrequently a long annuity or a ticket in a government lottery forming part of the emolument. There were fortunately, however, 11 loans made in the 3 per cents during the last war, uncomplicated with any such disturbing circumstances. There were also 12 loans made in the 5 per cents during the same period, similarly free from all complication with other kinds of stock. The total amount raised in these 3 per cents was £157,650,000;* the total sum raised in the 5 per cents was £88,292,748. For each £100 raised in the 3 per cents, £170 stock was given, and for each £100 raised m the 5 per cents, £110 stock was given; that is to say, for each £100 raised in the former, the country paid 3 per cent on £170, being equivalent to 5 096 per cent, on the total sum thus raised; and for each £100 raised m the latter, the country paid 5 per cent, on £110, bemg equivalent to 5'514 per cent, on the total thus raised Starting, then, from these facts, taking the year 1804 as the average date at which the loans were contracted, and taking into account the reductions made in the interest of the 5 per cents m the years 1822, 1830, 1844, and finally in 1854, I have computed what the cost to the country has been up to the present time for each £100 raised in these two kinds of stocks respectively; and, having ascertained this cost, supposing it of course to accumulate at compound interest, I have discounted it back to the year 1804, the average date at which the whole may be supposed to have been contiacted. The result of my calculationf shows a loss upon these 3 per cent

* Hamilton on the National Debt, Third Edition, p 252.

f The £88,292,748, boirowed m the 5 percent funds referred to in the text, were funded at £110 , the total interest paid being £4,868 427, or 5 514 per cent on the sum borrowed. We may assume the aveiage rate of interest from the time the debt was contracted till the present year to have been 4 pei cent ; if this should not be strictly accuiate, the maccmacy will not materially affect the results of the calculation, as it will bear as much upon one side of the comparison as upon the other. We may also take the year 1804 as the average date at which the debts were contracted, that being the central point of the period over which they were spread In order to compute the cost to the nation of £100 raised in this way, we must consider, 1st, the value of an annuity of £5"514 (the inteiest paid upon each £100 bonowed) accumulating at compound interest at 4 per cent (the average rate of interest during the period) from the year 1804 (date at which the debt was contracted) till the year 1822, (when the first reduction in the interest took place), we must then ascertain the value of this sum in the present year, supposing it to accumulate at compound interest since 1822.

2nd We must consider the value of an annuity to the amount of the reduced inteiest, accumulating at 4 per cent, compound interest from 1822 till 1830 (when transactions, as compared with the 5 per cent, transactions, of 2*572 per cent. The loss, theiefore, upon the whole of these 3 per cent, loans was £4,054,658. Now, if we were to assume that the loans which have been selected for the calculation are an average specimen of all the 3 per cent, transactions during the war—an assumption

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the second reduction took place), and ascertain the value of this sum in the present year.

3id. We must consider the value of an annuity to the amount of the interest thus a second time l educed, accumulating at the some interest from 1830 to 1844 (when the third reduction took place), and ascertain the value of this sum in the present year.

4th We must consider the value of an annuity to the amount of the interest thus a third time reduced, accumulating in the same way from 1844 up to the present.

The total of all these sums will repiesent the cost to the nation m 1854 of £100 raised in the 5 per cents in the year 1804.

The following then is the calculation —

An annuity of £5 514 at 4 per cent, compound interest for 18 years, (1804-1822) £141-406

£141 406 at 4 per cent, conrppundmterest for 32 years (1822-1854) £496-335

In the year 1822 the 5 per cents, weie reduced to 4 per cents , £105 m the 4 per cents, hemg given foi £100 m the 5 per cents. This transaction was equivalent to a reduction of the interest on the sum originally borrowed from 5 514 to 4 62 per cent Therefoie :—

An annuity of £4 62 at 4 per cent compound interest for 8 years (1822-1830) £42 568

£42 568 at 4 per cent, compound interest for 24 years (1830-1854) 108 974

In the year 1830 the 4 per cents were reduced to 3J per cents , being equivalent to a reduction in the mteiest on the sum originally borrowed from 4 62 to 4 04 per cent. Theiefoie —

An annuity of £4 04 at 4 per cent, compound interest for 14 years (1830-1844) .. .. „ . . . £73 891

£73 891 at 4 per cent compound interest, for 10 years (1844-1854) 109*357

In the year 1844 the 3| per cents, were reduced to 3^ per cents , being equivalent to a reduction of the interest on the sum originally bonowed from 4 04 to 3 75 per cent Therefore •—

An annuity of £3 75 at 4 percent, compound interest for 10 years (1844-1854) £45 000 45 000

Total cost to the nation at present, of £100 borrowed in the year 1804 £759 *666*

Comparing this with the 3 per cents, referred to —

The £157,650,000 borrowed rn these funds (three per cents), was funded at £170, the total mteiest paid being £8,034,135, or 5*096 percent, on the sum borrowed. The cost to the nation, therefore, by the year 1854, of each £100 borrowed m these funds, will be represented by an annuity to that amount, £5 096, accumulating at compound interest, four per cent , from J804 to 1854.

Annuity of £5 096, at four per cent, compound interest, for 50 years, viz. (1804 to 1854) £777*991

The total cost, therefore, of £100 in three per cents £777 991
„ ,, £100 in five per cents. 759 666

Loss upon three per cents in the year 1854 .. .. £18 325

The value of this sum in the year 1804, discounting it at four per cent compound interest, was £2 572, which represents the value of the average loss upon each £100 borrowed in the three per cents (under revision), at the dates at which they were transacted This being the loss *per cent.,* the whole loss is £4,054,658.

which could not be far from the truth, as they were spread with tolerable uniformity over the whole penod—the result would show a total loss upon the aggregate of the 3 per cent, transactions, to the amount of £9,153,672; and this calculation, it is to be observed, takes account *only of the actual interest paid,* and is quite irrespective of any conjectures as to the probability of the principal of the debt being ever paid off

It should, moreover, be remarked that the case which I have taken is one peculiarly favorable to the 3 per cents. The longer the 5 per cents remain unreduced, the less will be the disadvantage of funding m low stocks: if the high stocks wei e never reduced or never paid off, it would be all pure gam. Now, the length of time during which the high funds remain unreduced must depend very much on the length of the war; and, therefore, the longer the war, the more favorable would be the case for the low funds. The last war was the longest that has been waged in Europe for centuries. It lasted twenty-two years (for it is scarcely worth while considering the short interval after the peace of Amiens); but the aveiage length of wars waged by Great Butam during the previous century was under nine years. The expenment may, therefore, be considered as a crucial one. If low-funding by increase of capital produce results so prejudicial under circumstances so favorable, the condemnation of the system must be absolute and unqualified. Even supposing a full eqiiivalent obtained in immediate accommodation, it may still well be doubted if this policy is justifiable. It embodies m an exaggerated form all the evils of the funding system; it saddles posterity not only with the burden of a heavy interest, but also with an excess of capital debt beyond what the exigency of the times either needed or obtained.

For these reasons it would appear desirable, in the event of the country being again obliged to resort to the practice of raising money on government loan, to adopt such a plan as may keep the funded capital for which the nation may become responsible within the limits of the sum which the necessities of the state require Now, this can only be done either by funding m stock bearing the market rate of interest, or by annexing to the stock some collateral advantage, such as a long annuity. The objection to borrowing at a high rate of interest is, that when the interest on government

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Now, the whole amount *borrowed* in the three per cents dm ing the war was £356,174,023 Supposing then the loans taken for the calculation to have been a fair specimen, the loss upon the whole would be £9,153,672

The funded capital of the 5 per cents having been raised 5 per cent in the conveision which took place in 1822, the present position of the country with reference to the sums borrowed in these two kinds of stocks (now that they have been both reduced to the same denomination, viz 3 per cent) is, that for each £100 originally boirowed m the 3 per cents , the country is paying 3 per cent, on £] 70 , and for each £100 originally borrowed m the 5 per cents, it is paying 3 per cent, on £115 It IS evident from this, that every further reduction in the rate of interest will lessen the loss to the country upon the 3 per cents , though the lofcs will not disappear entirely till the interest has been reduced to zero.

loans is nearly or fully up to the market rate, there is always a possibility, upon the least decline in the market rate of interest, that such government stock may rise above par, and thus the interest on it become liable to reduction. This circumstance takes from the certainty and stability which it is desirable that funded property should have, in order to make it popular as a permanent investment. This objection, however, might be obviated in a great degree, by giving a guarantee against reduction for a limited number of years; a contrivance that has already had the sanction of the present Chancellor of the Exchequer. Now if there is to be no increase in the funded capital of the debt beyond the sums advanced to government, it will be necessary that the bidding take place either in the rate of interest or in some collateral inducement, such as a long annuity. I believe it is generally considered to be inconvenient to have the bidding in the rate of interest. The plan, tEereioieTtKaf~T)~n~the whole" seems liable to the fewest objections, is that the requisite sums should be raised in stock bearing a rate of interest a little below the market rate, with a guarantee for a limited number of years, a n d j H ^ g^^ uuity attached, in the length of which the bidding mi^iFtaEe^*place. In determining the rate of interest to be offered, the length of the guarantee, and the amount of the annuity, the financier must of course be guided by the state of the money market at the time when the loan comes to be negotiated: it will be for him under all the circumstances to make the best bargain he can for the country.

The conclusions, then, to which the foregoing investigation has led me, may be thus summed up.

1st. The general principle, whether regarded m its moral, economical, or financial aspects, is that the supplies for a war expenditure should be raised by additional taxation levied within the year

2nd. This principle should, in its application to practice, be confined within the limits pointed out in a previous portion of the paper—limits which will be determined by the amount of revenue required, and the character of the taxes at the disposal of the financier If the requisite supplies cannot be raised by taxation without passing these limits, resort should then be had to the money market, as being the least objectionable alternative.

3rd The taxation of the United Kingdom is still far short of that amount which would justify a resort to the money market, and the margin for legitimate additions to taxation is still large.

4th. In the event of having recourse to credit to meet current expenses, it is important that the principle should be adopted of keeping the funded capital of the debt within the limits of the amount of capital borrowed, a principle which has been observed in the form of stock suggested in the previous page.

THE END.

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