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Chapter Title: The Growth in Government Expenditure and National Income

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## CHAPTER 3

# The Growth in Government Expenditure and National Income

OUR case-study of British government expenditure since 1890 begins with presentation of the actual statistics of total annual expenditures and comparison of the changes indicated by these statistics with the changes in national income. We then examine the effects of the permanent influences (population, price, and level of employment changes) on government expenditure. First, however, we present a brief history of government expenditures in the earlier part of the nineteenth century, intended to serve as a useful general background for the later argument.

### *British Government Expenditure Before 1890*

In his famous chapter on "The Limits of the Province of Government," John Stuart Mill stated the maxim that "the business of life is better performed when those who have an immediate interest in it are left to take their own course, uncontrolled either by the mandate of the law or by the meddling of any public functionary."<sup>1</sup> This maxim, shorn of Mill's own detailed qualifications of it, dominated the actions of the statesmen who followed the "old" liberalism. Translated into practical financial policy, it meant that the level of government expenditure was to be kept at the minimum consistent with the provision of adequate protection against the Crown's enemies and of the maintenance of law and order; a wide interpretation of the latter included, to the Victorian mind, the relief of certain forms of social distress.

So universal was the acceptance of this attitude that it is difficult to detect in the history of British public finance in the nineteenth century any pronounced disagreement. The main sources of disagreement were about methods rather than aims and were concerned with how best to hold expenditure in check or reduce it. On the expenditure side of the budget, the debate was thus for the most part about the ways in which the payments of national debt interest might be reduced and about how to provide the accepted government services as economically as possible, in order—in Gladstone's graphic phrase—to bring about "the saving of candle ends." The real struggle in Parliament was concerned not with expenditure but with methods of raising revenue, with the relative merits of direct and indirect taxation, the object of minimizing the level of government expenditure being taken for granted.<sup>2</sup>

<sup>1</sup> *Principles of Political Economy* (Ashley edition), London, 1909, Book V, Chapter XI, p. 952.

<sup>2</sup> The question of attitudes toward public spending and their effects is discussed in greater detail in Chapter 5.

## GROWTH IN EXPENDITURE AND NATIONAL INCOME

Accurate and relevant statistics of government expenditure and its relation to national income for the period before 1890 are difficult to come by. Table 1 derives from provisional statistics collected for a study of this period by Jindrich Veverka, now in preparation (see Appendix, "Notes on Tables Not Derived from Appendix Tables"). The figures are not fully comparable with the data for the later period, but are sufficiently so for us to draw some general conclusions about how relatively narrowly the functions of government were conceived in the nineteenth century, and about the way the position of the government in the economy has changed since 1800.

The table shows that, after declining from a peak of £123 million during the Napoleonic Wars (1814), government expenditure at current prices remained fairly constant in size until the period of the Crimean War (1854–56). Current money expenditures were one-third higher in 1860 than in 1850, and then continued to rise slowly through the 1870's. In 1880 (the period of the Zulu Wars) expenditures were about 25 per cent greater than in 1860. Thereafter, there was a new period of gradual increase, until the rough expenditure plateau was broken by the expenditure peak in 1900—the period of the South African War, the end of the period under survey, and ten years after the beginning of our period proper.

These statistics of total expenditures at current prices may be thought to provide a misleading and unrealistic picture of the growth in importance of government, and from some points of view this is certainly true. Such statistics are given special interest for the period being considered, however, by the fact that the absolute level of government expenditure at current prices was uppermost in the minds of the nineteenth century Chancellors of the Exchequer. Writing just after the turn of the century, the statistician Robert Giffen justifiably complained that in this period there was "no real discussion of what the expenditure of the state should be and for what purposes, and of what could really be borne by the community, any more than there is now or ever has been at any time in my recollection."<sup>3</sup> Taken together with the attitude to expenditures just described, such thinking in money terms meant that the share of government in community output was perhaps more likely to be a passive consequence of changes in the level of prices than has been the case in later generations.

However, for us as for Giffen, changes in real government expenditures and in the share of such expenditures in real GNP are also matters of great interest, whatever their causes.<sup>4</sup> As Table 1 also shows, the pro-

<sup>3</sup> See Sir Robert Giffen, *Economic Inquiries and Studies*, London, 1904, II, 310–311, 325.

<sup>4</sup> But see our discussion of the problems of interpretation of these indicators of expenditure growth in Chapter 1.

TABLE 1

TOTAL GOVERNMENT EXPENDITURE AND GROSS NATIONAL PRODUCT,  
AT CURRENT AND 1900 PRICES, SELECTED YEARS, 1792-1900  
(index, 1900 = 100)

	1792	1800	1814	1822	1831	1841	1850	1860	1870	1880	1890	1900
<b>1. Government expenditure</b>												
Total (£ mn.)	22.0	71.0	123.0	69.0	63.0	63.0	66.0	88.0	93.0	117.0	130.0	268.0
At current prices	8	26	46	26	23	23	25	33	35	44	48	100
Index	17.0	39.0	60.0	49.0	48.0	48.0	62.0	72.0	74.0	103.0	132.0	268.0
At 1900 prices	6	15	22	18	18	18	23	27	28	38	49	100
Index												
<b>Per head (£)</b>												
At current prices	1.6	4.5	6.5	3.3	2.6	2.4	2.4	3.0	3.0	3.4	3.5	6.5
Index	25	69	100	51	40	37	37	46	46	52	54	100
At 1900 prices	1.2	2.4	3.2	2.3	2.0	1.8	2.3	2.5	2.4	3.0	3.5	6.5
Index	18	37	49	35	31	28	35	38	37	46	54	100
<b>2. GNP</b>												
Total (£ mn.)	200.0	300.0	418.0	360.0	403.0	556.0	545.0	778.0	988.0	1,148.0	1,412.0	1,780.0
At current prices	11	17	24	20	23	31	31	44	56	65	79	100
Index	154.0	162.0	203.0	255.0	310.0	418.0	514.0	643.0	790.0	1,016.0	1,441.0	1,780.0
At 1900 prices	9	9	11	14	17	24	29	36	44	57	81	100
Index	14.4	18.9	22.2	17.2	16.8	20.8	20.0	27.1	31.7	33.2	37.7	43.2
Per head (£)	33	44	51	40	39	48	46	63	73	77	87	100
Index	11.1	10.2	10.8	12.2	12.9	15.7	18.8	22.4	25.3	29.4	38.4	43.2
At 1900 prices	26	24	25	28	30	36	44	52	59	68	89	100
Index	11	24	29	19	16	11	12	11	9	10	9	15

(1) As percentages of (2)

## GROWTH IN EXPENDITURE AND NATIONAL INCOME

portion of total government expenditure to GNP was around 11 per cent before the Napoleonic Wars. After those wars, a higher share persisted for some time, but the old proportion had become established again by the decade 1830-40. Such a return was not unexpected, given the prevailing attitude to public expenditures, and given the fact that the governments of the time were aware of the potential displacement effect of wars and were actively concerned to prevent a permanent upward shift in the share of government as a consequence of such wars. From 1841 until 1890 the share of government changes little, declining very slowly from 11 per cent of GNP in 1841 to 9 per cent in 1890. This compares with a share of 12 per cent in 1905, 24 per cent in 1923 and 37 per cent in 1955 (Appendix Table A-6). The gradual decline over the second half of the nineteenth century is the more interesting for being associated after 1875 with a declining price trend which (given the interest of the Chancellors of the day in money expenditures) might have been expected to encourage an opposite movement.

At the end of the Napoleonic Era the three largest items of expenditure were central government expenditure on debt interest, military expenditure, and local government expenditure on poor relief. The size of debt interest was being restricted, if not actively reduced, from that time until the beginning of the South African War, and was becoming a smaller proportion of national product in consequence. Thus, debt interest at current prices was £32 million in 1822, £26 million in 1860, and £20 million in 1900. Until the Crimean War, debt interest was almost a half of all government expenditure, in 1880 it was only a quarter and in 1890 a fifth. A hundred years after the Crimean War, as we shall see, debt expenditure represented as little as 11 per cent of total government expenditure, but it had been up to nearly 30 per cent between the two wars.<sup>5</sup> The costs of defense move in an opposite direction from that of debt interest payments. Drastically reduced after the Napoleonic Era, they gradually rose after the Crimean War until they overtook national debt interest in the 1880's. From that date onward, defense expenditure has always represented a major portion of central government expenditure.

If we remove these war-related and military expenditures from consideration, we find that the gradual decline in the share of total expenditures after 1840 is not reflected in the residual group. Thus, total expenditures less national debt were 6 per cent of GNP in 1841, and had risen to 7 per cent in 1890. If defense is also excluded, the residual grows in importance from 3 per cent of GNP in 1841 to 5 per cent in 1890. That is, nonmilitary expenditures shared in the displacement that appears to

<sup>5</sup> The 1800-1890 debt statistics include intragovernmental debt payments, and so slightly exaggerate the significance of the debt burden (see first section of Chapter 4).

## GROWTH IN EXPENDITURE AND NATIONAL INCOME

have occurred over the period of the Napoleonic Wars, and also increased their share of GNP during the long period of relative stability thereafter.

Turning now to responsibility for expenditures, we find that perhaps the most striking development of the period was in the size and character of local government expenditure. At the beginning of the nineteenth century, the major function of local government was the organization and provision of poor relief. By 1890, expenditure had increased to five times the 1820 level, as more and more services were undertaken. Mrs. Dashwood in Jane Austen's *Sense and Sensibility* (published in 1797) sent her furniture by sea from Sussex to Exeter, road haulage being costly and dangerous. One hundred years later the position was quite different; the Turnpike Trusts had been wound up, a much improved road system had been created, and such a mode of transportation would have been thought most unusual. In the process, County Councils had become the main road builders. After the cholera epidemics in 1831 and 1848 much greater attention was paid to public health, and the Public Health Acts of the sixties and seventies fostered local authority enterprise in housing and sanitation. While comprehensive elementary education had to wait until the founding of the Board of Education in 1899, the local authorities had earlier begun to receive grants from the central government to encourage individual schools and were authorized to raise rates not exceeding one penny in the pound to finance technical education and manual instruction. In sum, poor relief, which had been by far the greatest single item of expenditure after the Napoleonic Era, was only about 12 per cent of local expenditure in 1890, and the change had taken place by way of a growth in the other functions of local government rather than by a decline in the importance of relief functions.

One final point needs to be made about these statistics, which we shall find of interest when we come to discuss the later period in Chapter 5. A remarkably large part of total government expenditure during this period represented transfers to private individuals (such as national debt interest, poor relief) and to private institutions (such as grants to private schools). National debt interest payments were much the most important of these. The direct share of government in the national product, therefore, was considerably smaller than government expenditure expressed as a percentage of national income. It is not possible to give very detailed or accurate statistics of government resource use, but we can say that in 1822 it was something like 8 per cent, in 1850 about 6 per cent, in 1870 about 5.5 per cent and in 1890 about 7 per cent of national product.

It is usually assumed that rapid industrialization must bring with it a considerable expansion in "social overhead capital." Certainly, capital expenditure by local government on roads and other economic services

## GROWTH IN EXPENDITURE AND NATIONAL INCOME

began to increase at a rate faster than the rate of growth of real national product in the second half of the nineteenth century, but the absolute size of such expenditure was still remarkably small, and (as we have already seen) real government expenditure as a whole did not constitute an increasing share of national income over the same period. Nevertheless, there is reason to believe that, before the period of this study, the seeds of increasing government economic activity had already been sown. The old liberalism was giving way to the new. In a public speech in September 1885, Joseph Chamberlain said, "The greater part of municipal work is Socialism, and every kindly act of legislation by which the community has sought to discharge its responsibilities and its obligations to the poor is Socialism, but it is none the worse for that."<sup>6</sup> A younger contemporary was to add to this the Wagnerian argument: "The whole tendency of civilization is, however, towards the multiplication of the collective functions of society. The ever-growing complications of civilization create for us new services which have to be undertaken by the state, and create for us an expansion of the existing services."<sup>7</sup> Fifty years later the self-same speaker presided over a government responsible directly or indirectly for spending a sum equal to no less than 37 per cent of the peacetime national income.

### *Government Expenditure and Gross National Product Since 1890*

We now examine the annual statistics of total government expenditure since 1890, its secular growth, secular changes in the proportion of government expenditure to GNP, and the shorter-term changes in expenditure that make up the time pattern of growth and (perhaps) show a displacement effect in some periods that encourages further study. We also consider how these things are affected by changes in population, prices, and the level of employment. The analysis leads to the conclusions that there has been a considerable growth in government expenditure in real terms per head of population, that the rate of growth over the period as a whole was considerably faster than the rate of growth of gross national product in real terms per head of population, and (what is in some ways more important for our general thesis) that when we have taken account of population growth, price changes and changes in the level of employment, we are left with an important phenomenon to explain—the irregular time pattern of expenditure growth. The examination and explanation of this displacement effect provides the theme of later chapters.

<sup>6</sup> Cited in A. Bullock and N. Shock, eds., *The Liberal Tradition from Fox to Keynes*, London, 1956, p. 207.

<sup>7</sup> Extract from a speech delivered in Glasgow in 1906 by Winston S. Churchill, subsequently republished in his book *Liberalism and the Social Problem*, London, 1909. See Bullock and Shock, eds., *op cit.*, p. 210.

## GROWTH IN EXPENDITURE AND NATIONAL INCOME

### GOVERNMENT EXPENDITURE AND GROSS NATIONAL PRODUCT AT CURRENT PRICES

Table 2 and Charts 1 and 2, derived from Appendix Tables A-2, A-5, and A-6, demonstrate both the growth in government money expenditures and the characteristic time pattern of that growth.

The great absolute increase in the size of money expenditures during the period is striking. From £130.6 million in 1890, spending rose to £1,592.1 million in 1920 and to more than £6,000 million in 1955. The index of total expenditure, taking 1900 as base year, was 47 in 1890, 567 in 1920, and 2,188 in 1955 (cf. Chart 2). The change in gross national product, however, was not nearly so rapid. GNP rose from £1,472 million in 1890 to £6,070 million in 1920 and then to over £16,700 million in 1955. Taking 1900 as base year, the index of GNP at current prices rose from 76 in 1890 to 312 in 1920 and to 863 in 1955. Expressed in another way, the proportion of total government expenditure to gross national product at current prices rose from around 9 per cent in 1890 to 26 per cent in 1920 and to 37 per cent in 1955. This increasing proportion appears in Chart 1 as a narrowing of the gap between the GNP and government expenditure curves.

The secular growth did not take place in a regular fashion through time; there is no growth trend of government money expenditure reflecting the year-by-year changes in national income. Instead, the curve of government expenditures has the outline earlier referred to—plateaus of ascending height separated by expenditure peaks. The pattern shows very clearly in the two charts. The expenditure peaks coincide with years of war (1900, 1918, 1943, 1952), and, as we should expect, the peaks themselves and the change in the height of the plateaus are less obtrusive in the case of the Boer War (1899–1902) and the Korean War (1951–52) than in the case of the two world wars (1914–19 and 1939–45). This obviously reflects the much greater disruption of the life of the community during the world wars. Also the years 1900 and 1952 are a little too near the beginning and the end of our period for satisfactory interpretation, and in any case the statistics for the Boer War period were collected at five-year intervals only.<sup>8</sup> There are consequently strong arguments for concentrating our subsequent analysis of the displacement effect of war upon the periods of the two world wars.

However, we have not yet demonstrated that there is a phenomenon of displacement of sufficient practical interest to merit detailed examination; we must first see how the pattern of money expenditures has been affected

<sup>8</sup> It appears from these five-yearly figures, however, that the South African War did produce some displacement of government expenditures, and other historical evidence tends to confirm this (see Chapter 5).

TABLE 2

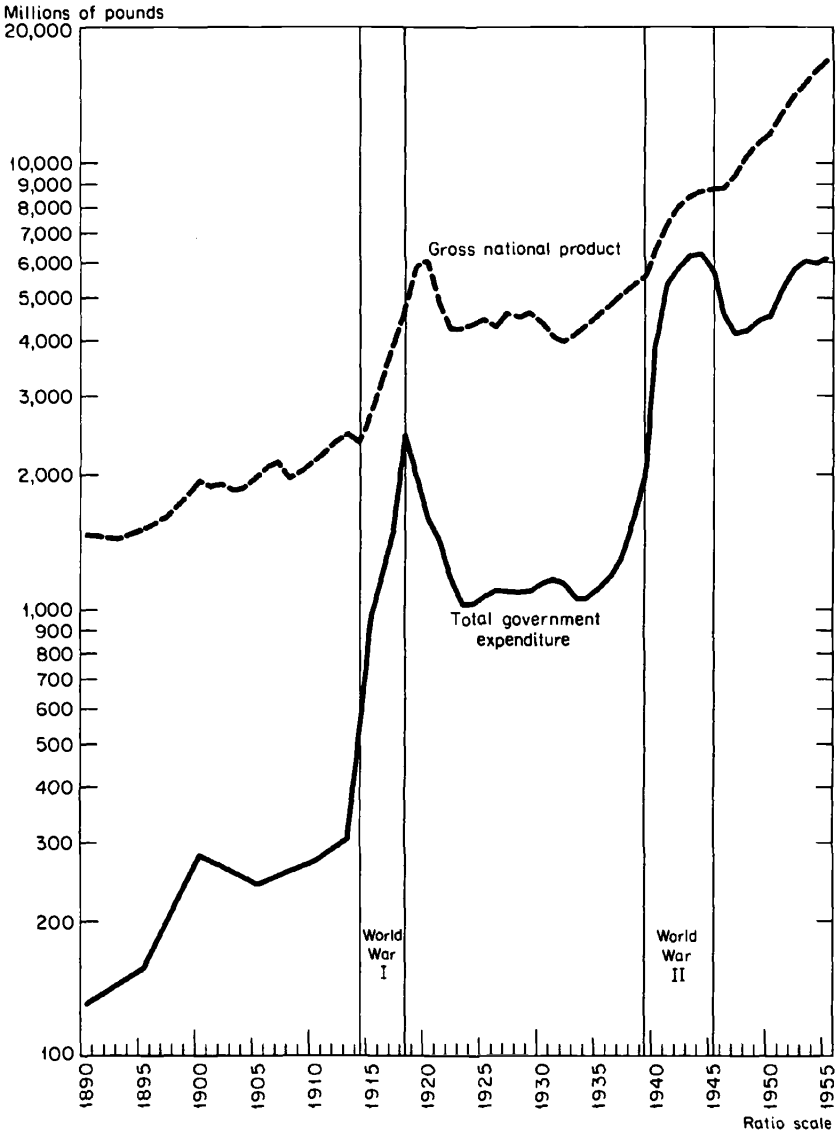
TOTAL GOVERNMENT EXPENDITURE AND GROSS NATIONAL PRODUCT,  
AT CURRENT AND 1900 PRICES, SELECTED YEARS, 1890-1955  
(index, 1900 = 100)

	1890	1900	1910	1920	1928	1933	1938	1950	1952	1955
<b>1. Government expenditure</b>										
Total (£ mn.)	130.6	280.8	272.0	1,592.1	1,094.7	1,066.0	1,587.0	4,539.0	5,777.0	6,143.0
At current prices	47	100	97	567	390	380	565	1,616	2,057	2,188
Index	133.3	280.8	263.6	565.3	554.8	615.9	851.2	1,195.0	1,311.0	1,309.0
At 1900 prices	47	100	94	201	198	219	303	426	467	466
Index										
Per head (£)	3.5	6.8	6.1	36.4	24.0	22.9	33.4	90.5	114.5	120.5
At current prices	51	100	89	533	352	336	490	1,326	1,678	1,766
Index	3.6	6.8	5.9	12.9	12.2	13.2	17.9	23.8	26.0	25.7
At 1900 prices	53	100	86	189	179	193	262	349	381	377
Index										
<b>2. GNP</b>										
Total (£ mn.)	1,472.0	1,944.0	2,143.0	6,070.0	4,523.0	4,141.0	5,294.0	11,636.0	13,928.0	16,784.0
At current prices	76	100	110	312	233	213	272	599	716	863
Index	1,508.0	1,944.0	2,057.0	2,168.0	2,289.0	2,377.0	2,829.0	3,024.0	3,131.0	3,505.0
At 1900 prices	78	100	106	112	118	122	146	156	161	180
Index										
Per head (£)	39.3	47.2	47.7	138.8	99.2	89.0	111.5	231.9	276.1	329.3
At current prices	83	100	101	294	210	189	236	491	585	698
Index	40.2	47.2	45.8	49.6	50.2	51.1	59.6	60.3	62.1	68.8
At 1900 prices	85	100	97	105	106	108	126	128	132	146
Index										
(1) as percentage of (2)	8.8	14.4	12.8	26.1	24.2	25.9	30.1	39.5	41.9	37.3
(1900 prices)										

Source: Appendix Tables A-2, A-5, and A-6.

GROWTH IN EXPENDITURE AND NATIONAL INCOME

CHART I  
Total Government Expenditure and Gross National Product,  
at Current Prices, 1890-1955



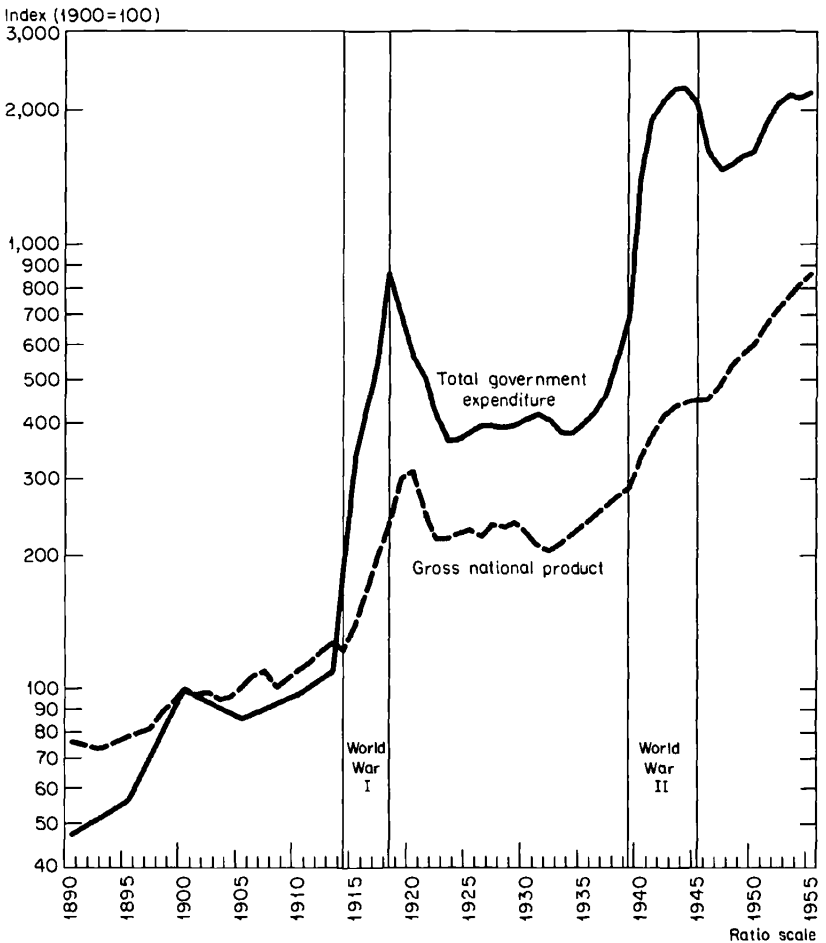
*GROWTH IN EXPENDITURE AND NATIONAL INCOME*

by other permanent influences, and whether the wartime displacement in the expenditure pattern remains as a "real" phenomenon when these influences have been removed.

GOVERNMENT EXPENDITURE, GROSS NATIONAL PRODUCT,  
AND POPULATION CHANGES

The period of our study was marked by a very considerable change in the rate of growth of population as compared with the nineteenth century.

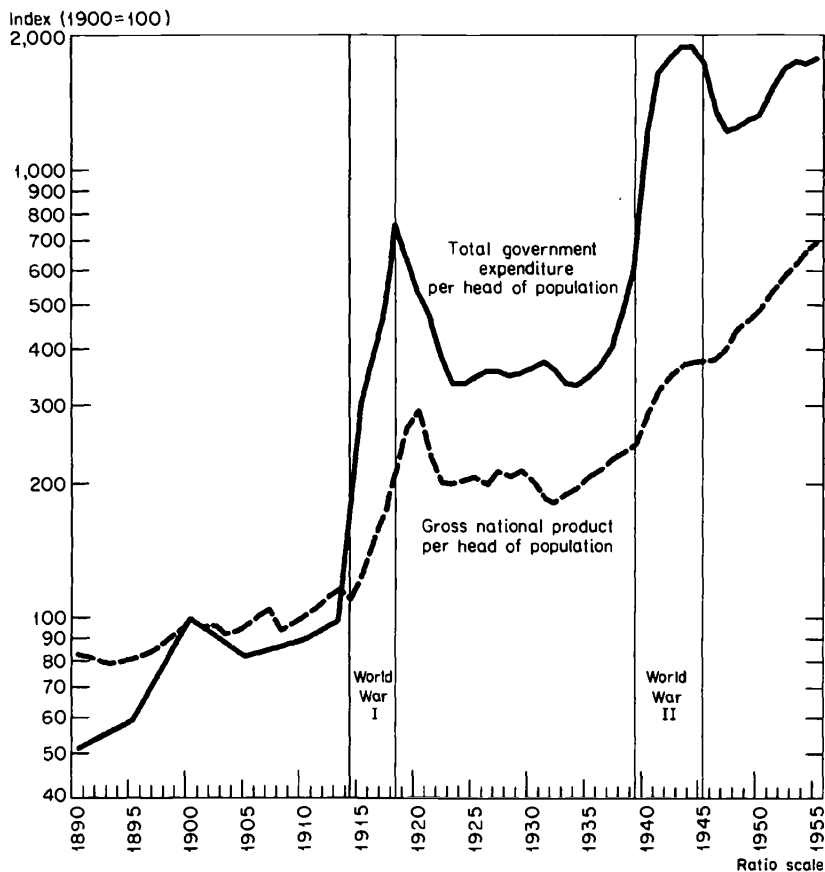
CHART 2  
Indexes of Total Government Expenditure and Gross National Product,  
at Current Prices, 1890-1955



GROWTH IN EXPENDITURE AND NATIONAL INCOME

CHART 3

Indexes of Government Expenditure and Gross National Product, per Head of Population, at Current Prices, 1890-1955



As in other European countries, the fall in birth rates and the decline in the rate of change in mortality rates led to a marked slowing down in the rate of population growth. Between 1850 and 1900, the population of the United Kingdom rose by 51 per cent, while between 1900 and 1950 it only rose 22 per cent.<sup>9</sup>

How is this change reflected in the trends in government expenditure per head? Since population has increased, the rate of increase of money expenditure per capita must be less rapid than the rate of increase in

<sup>9</sup> See Table A-1. The break in the index in 1920 reflects the granting of independence to the Irish Free State (Eire).

### GROWTH IN EXPENDITURE AND NATIONAL INCOME

total expenditure. Nevertheless, the per capita statistics are in some ways even more striking, since they provide a rather better index than total spending of the changing impact of government fiscal activities upon the individual. Money expenditure per head rose from £3.5 in 1890 to £6.8 in 1900, £36.4 in 1920, and to £120.5 per head in 1955. In index terms, with 1900 as base year, 1890 stands at 51, 1900 at 100, 1920 at 533, and 1955 at 1,766 (see Chart 3). In comparison, GNP per head rose from £39.3 per head in 1890 to £329.3 per head in 1955, with a rise in the index (1900 = 100) from 83 to 698.

Again, the irregularity of the time pattern of growth relative to the growth of GNP remains; taking account of population changes in the way we have done leaves us with peaks and plateaus in the same places as before. This is also demonstrated in Chart 3. The result is to be expected, since the adjustment of both GNP and government spending to take account of population changes must leave the time relationships of the two magnitudes unaltered.

#### GOVERNMENT EXPENDITURE AND GROSS NATIONAL PRODUCT AT 1900 PRICES

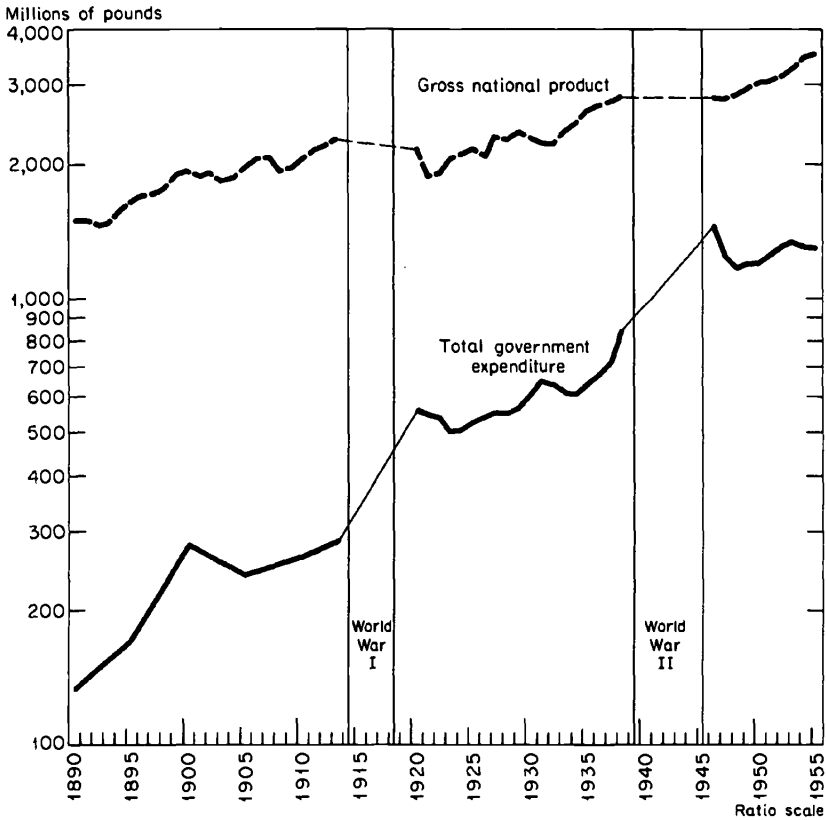
Even a very slight acquaintance with the economic history of Britain would lead one to suspect that the absolute increase in government money expenditure is at least partly attributable to the rise in prices since 1890. The procedure we have adopted to eliminate the effects of price change consists in essence of the deflation of the money data by indexes derived from the capital and current components respectively in government expenditures and GNP.<sup>10</sup> The result can be seen in Table 2 and in Charts 4 and 5. If we accept the deflated figures as an indication of expenditure in real terms, we find that the thirtyfold growth in money spending since 1890 now represents a smaller (tenfold) real increase. The index of government expenditure at constant (1900) prices rose from 47 in 1890 to 100 in 1900, to 201 in 1920, and to 468 in 1954 (see also Chart 5). Correspondingly, there was a slower rate of increase in GNP at constant prices, which, in terms of our index, rose from 78 in 1890 to 100 in 1900, to 109 in 1924, and to 177 in 1954.<sup>11</sup> That is, unless our indexes are grossly misleading about the relative importance of price changes in the public sector and in the economy as a whole (which we think unlikely), the secular growth in money expenditures reflects a considerable growth in the proportion of real government expenditure to community output. Indeed, the disparity between the price indexes (of government expenditure and GNP) is not important enough to make

<sup>10</sup> The procedure is described in detail in the Appendix under "Price Indexes."

<sup>11</sup> The available data being unsatisfactory for the period 1914-23 (see Appendix, "Gross National Product at Factor Cost").

GROWTH IN EXPENDITURE AND NATIONAL INCOME

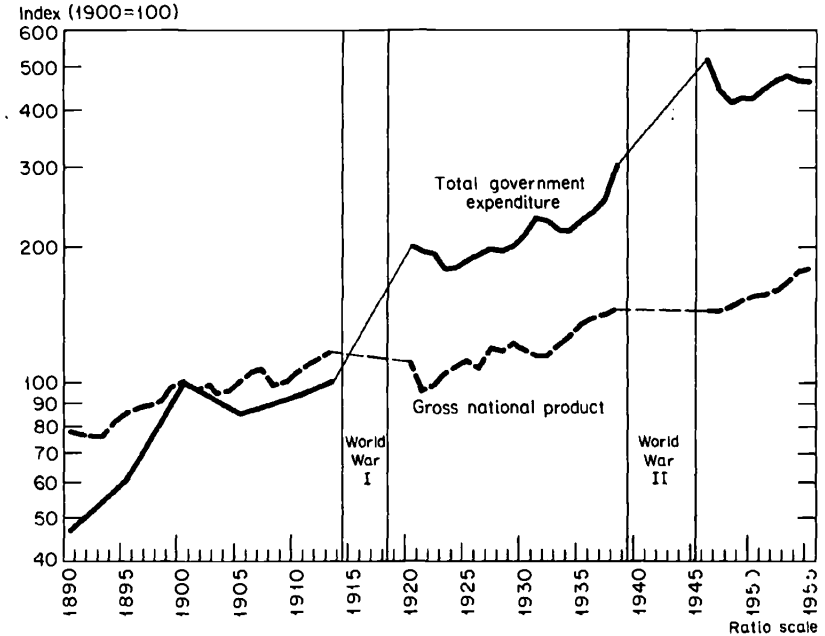
CHART 4  
Total Government Expenditure and Gross National Product,  
at 1900 Prices, 1890-1955



the “real” share of total government expenditure in GNP markedly different from the proportions we obtained earlier by using current money expenditures. In fact the proportions obtained by calculation in real and in money terms (which can best be seen from Table A-6) are close enough to suggest that we need not concern ourselves unduly with the influence of relative price changes in our subsequent discussion.

It also becomes clear from Charts 4 and 5 that the elimination of price changes, while it reduces the steepness of growth, has remarkably little effect on the shape of the curve of total government expenditure. The peaks and plateaus still remain, and at the same places and in the same relation to one another. In other words, price changes alone cannot account for the displacement effect.

CHART 5  
Indexes of Total Government Expenditure and Gross National Product, at 1900 Prices, 1890-1955

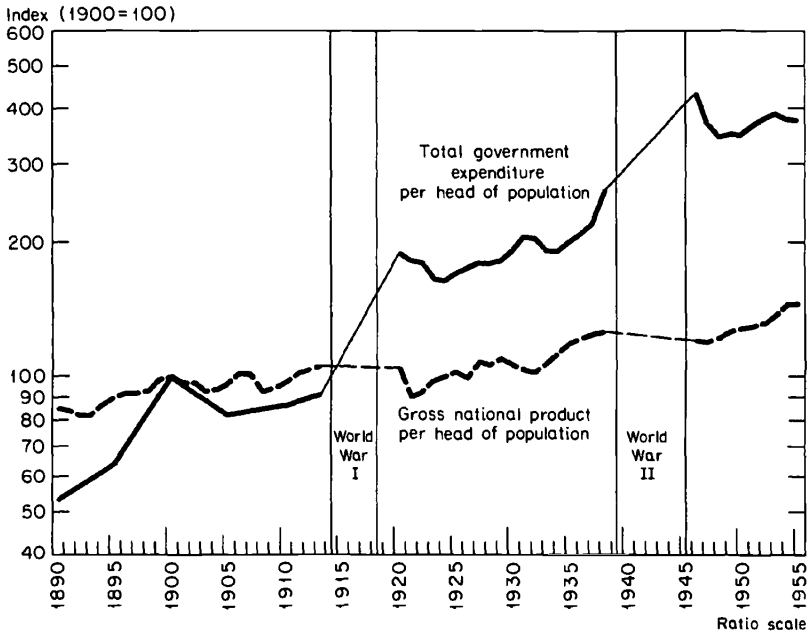


It remains to assess the combined effect of price and population changes. It is apparent from the statistics already presented that growth in real expenditure and real GNP per head must be slower over the period than the growth in the corresponding per capita money expenditures. But these same statistics also make it clear that the combination of the two influences cannot destroy the characteristic time pattern of expenditure growth, since (as already explained) the per capita figures must show the same increase in the proportion of real expenditures to GNP as do the total statistics. Thus, Table 2 shows that while government expenditure in money terms rose from £6.8 per head in 1900 to £120.5 per head in 1955, in real terms at 1900 prices it only rose to £25.7 per head. In terms of our index, the money rise per head was, as we have seen, from 100 to 1,766 over this period, but the real rise was only from 100 to 377. This is still a faster secular rate of growth than that of GNP, and the time pattern previously observed is no less clear, as both Table 2 and Chart 6 demonstrate. The displacement effect is still present, that is, and remains to be explained. Further, although there were considerable price movements during the period, as the price indexes show, the deflated statistics

## GROWTH IN EXPENDITURE AND NATIONAL INCOME

and the charts provide no indication that these movements were ever large or rapid enough to produce an observable permanent influence upon the level of government real expenditures. In other words, there is no significant short-term displacement effect associated with periods of inflation or deflation.

CHART 6  
Indexes of Government Expenditure and Gross National Product,  
per Head of Population, at 1900 Prices, 1890-1955



### GOVERNMENT EXPENDITURE AND THE LEVEL OF EMPLOYMENT

While the level of employment must be treated as an influence of permanent relevance to the size of government expenditures, its effect, if any, on the secular growth of expenditures is not easy to assess. More interest attaches to its short-term influence, that is, to the possible role of rapid changes in the volume of unemployment as the origin of more permanent displacements in the level of government expenditures generally. This possibility was discussed in Chapter 2; we must now consider its importance for our particular case-study. The nature of the data and the question we wish to answer impose a rather different statistical treatment from that adopted so far. We wish to know two

## GROWTH IN EXPENDITURE AND NATIONAL INCOME

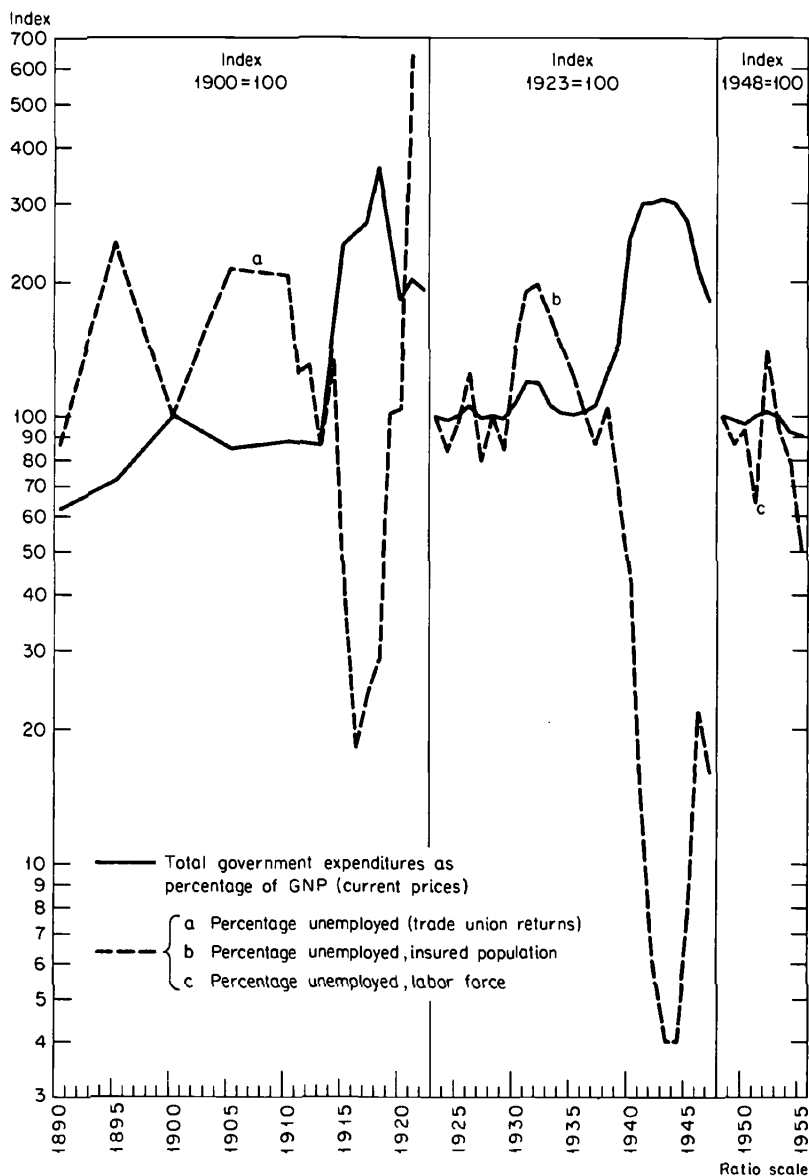
things: first, whether increases in unemployment during our period were associated with increases in government total spending; and second, where there was such an association, whether government expenditures were more permanently affected by the increase in spending generated during the unemployment period (in which case we could conclude that unemployment had stimulated a displacement) or whether they declined again with a decline in the amount of unemployment. Chart 7 presents the necessary information in the most convenient form possible; it plots indexes of the percentage of unemployed and indexes of the percentage of total government expenditure to GNP in three distinct periods on the same graph. This method is imposed by the fact that no series of unemployment statistics compiled on a comparable basis for the whole period can be obtained. We have therefore had to use three separate and noncomparable series, each for a distinct period of time. This is not likely to be seriously misleading, since our interest is in short-term changes and since when reduced to index form each set of statistics is generally believed to provide a reasonably accurate reflection of changes in the level of employment over the relevant period.<sup>12</sup>

The result shows that increases in the unemployment index often seem to be associated with short-term increases in the percentage of government expenditure to GNP, and the relationship becomes especially clear after World War I. The reason for this is obviously the introduction of unemployment insurance in the 1920's on top of the existing arrangements for the provision of poor relief. It is to be noted, however, that there was no permanent change in the level of expenditures following upon periods of high unemployment. Even in the case of the heavy unemployment in the early 1930's, the percentage of government expenditure to GNP fell again when the unemployment rate declined. There was no continuing displacement effect. This is not to argue, of course, that the conditions experienced during the Great Depression did not affect the attitude of governments and of the electorate to government intervention, but rather to stress the fact that the unemployment of itself produced no expenditure effects which outlasted its own duration; the timing of these more permanent changes is not closely associated with changes in the level of employment. However, the whole question of attitudes to state intervention and influences upon them must be reserved for later discussion.

<sup>12</sup> Full details of the nature and method of presentation of the unemployment statistics are given in the Appendix, under "Unemployment Series." The relevant statistics are in Table A-4.

GROWTH IN EXPENDITURE AND NATIONAL INCOME

CHART 7  
Unemployment and the Growth of Government Expenditure,  
1890-1955



NOTE.—Percentage unemployment, in index terms, plotted against an index of the percentage of government expenditure to GNP.