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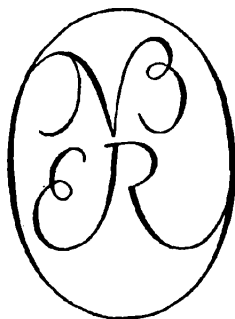
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THE GROWTH OF PUBLIC EXPENDITURE  
IN THE UNITED KINGDOM

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# The Growth of Public Expenditure in the United Kingdom

BY  
ALAN T. PEACOCK  
AND  
JACK WISEMAN  
ASSISTED BY JINDRICH VEVERKA



A STUDY BY THE  
NATIONAL BUREAU OF ECONOMIC RESEARCH

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## Preface

THIS study was begun in 1953 at the invitation of the National Bureau of Economic Research. At that time, its primary purpose was seen as the filling of a gap in the existing economic statistics of public expenditures in the United Kingdom during the last sixty years.

In the process of compiling these statistics, we have become increasingly aware of the lack of any satisfactory explanation of the changing characteristics and importance of the public economy. We have, therefore, ventured to widen the scope of our study in order to offer our own explanation and to test it against other statistical and historical evidence.

It is a pleasure to acknowledge the debt we owe to fellow economists. In the compilation of the statistics, we have been given invaluable help by J. E. G. Utting and Dorothy Cole of the Department of Applied Economics, Cambridge, and by Philip Redfern of the Central Statistical Office. Utting and Cole generously allowed us to use their estimates for central government expenditures for the period 1920–1938 which were extracted from their as yet unpublished study, “The Income and Expenditure of U.K. Public Authorities, 1920–38”, while Redfern helped us reclassify local government financial statistics for years before 1938. The companion study, *The Growth of Public Employment in Great Britain*, by Moses Abramovitz and Vera F. Eliasberg has eased our task of historical presentation, especially of local government financial development. These authors kindly offered helpful comments on the first draft of the manuscript.

The compilation of central government expenditure by economic and functional categories for the period 1890 to 1920 was a difficult and tedious business, and we must pay tribute to the industry and good nature of Leroy Dunn, who spent many months on the task. Latterly, we have relied on assistance from the Economics Research Division of the London School of Economics and Political Science. We must thank the Division for allowing us to call upon the services of Winston Chambers. We reserve a special word of thanks for Jindrich Veverka, who so far exceeded his duties as research assistant that we are delighted to couple his name with ours as authors of this study.

A first draft of the manuscript was fairly widely circulated to specialists in the field of public finance. We thank those who spared the time to plow through it and send comments and criticisms. We acknowledge more especially those received from James Buchanan, M. Slade Kendrick, and Lawrence H. Seltzer of the United States; Anthony Scott of the

## PREFACE

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## Introduction and Summary

THE purpose of this study is to present the facts about the behavior of British government expenditures since 1890, and to explain that behavior by reference to basic propositions about the character of government and the facts of British history. Here we shall outline our methods and findings, and comment upon the possibilities for further research.

### *Statistical Evolution*

The period saw considerable economic growth and technical and social change in Britain, accompanied by a striking increase in government spending. Electricity, the automobile, the airplane, the telephone and radio, the oil-burning ship, and cellulosic fibers caused the growth of great new industries and industrial regions, and contributed to the decline of older ones. These changes are reflected in the statistics of community output. In 1890, the gross national product of the United Kingdom (at factor cost) was £1,472 million; in 1955 it was £16,784 million, a money increase of more than eleven times. If we allow for price changes it increased two and a quarter times. Over the same period, the population rose 50 per cent (from 37.5 million to nearly 51 million), and there was considerable change in its age distribution. Real product per head of population thus rose about one and three-quarter times.

A growing proportion of the working population of Britain is now engaged in public services. In 1891, 3.6 per cent of the working population was employed by central and local government, compared with 13.9 per cent (24.3 per cent if we include nationalized industries) in 1950.<sup>1</sup> This growth of government activity is even more strikingly brought out by the statistics of government spending.

Total United Kingdom government expenditure increased forty-seven times in money terms and tenfold in real terms between 1890 and 1955. This is a sevenfold rise in real expenditures per head of population, and it implies a growth in the share of government expenditures in gross national product from 9 per cent in 1890 to 37 per cent in 1955. The growth of expenditures has not been regular; the change has come about through periodic jumps in the volume of public spending. Thus, the curve of government expenditures outlines a series of plateaus separated by expenditure peaks which coincide with the periods of war or preparation for war (1900, 1918, 1943, 1952). At the same time, the period has been marked by considerable changes in the relative importance and broad responsibilities of central and local authorities, with the latter failing to share fully in the general growth of government functions.

<sup>1</sup> For details, see Moses Abramovitz and Vera F. Eliasberg, *The Growth of Public Employment in Great Britain*, Princeton University Press for National Bureau of Economic Research, 1957, p. 25.

## INTRODUCTION AND SUMMARY

### *Approaches to Interpretation of Expenditure Growth*

At present, there are few fields of applied economic study which lack some useful general, albeit frequently incomplete, frame of reference; for example, there are plenty of business cycle theories to test against the facts. But it is difficult to find theories of public expenditure that explain rather than justify or condemn the facts of expenditure growth.

It is obvious why attempts to provide a satisfactory general theory of government economic behavior, or of collective behavior in the provision of public goods, should run into difficulties. To be general, such a theory must inevitably become highly abstract. Consider the attempt by Pigou to reduce the problem to manageable proportions by assuming that the government was a "unitary being," capable of determining the "correct level" of government expenditure by reference to the marginal principle.<sup>2</sup> In reality, governments are complex organisms whose functions and objectives may change greatly even over short periods of time. If any general theory is to be useful, it must somehow take these things into account.

In other contexts, where economic analysis requires that some recognition be given to the role of the public sector, government is usually treated as an exogenous factor outside the particular model's area of mutual interdependence, or is incorporated into it by postulating simple relationships between such magnitudes as government expenditure and the other variables in the model. In the latter case, the relationship assumed appears usually to be determined by analytical convenience rather than by the facts. From our present point of view, such a procedure has little or no value.

A somewhat different approach—at one time much discussed, but now referred to only in textbooks on public finance—is Adolph Wagner's attempt at the turn of the century to relate government expenditure growth to economic development. Briefly, Wagner's "law" asserts that government expenditures in any society will grow at a faster rate than community output. It was not expected necessarily to be valid for all time, but was certainly believed relevant both to the periods that Wagner studied and to the near future, which includes a large part of our own period. Wagner adduced a number of reasons for the existence of his "law," concerned not only with the nature of the state but also with such things as the essential complementarity of demand for and supply of private and public goods. In our view, Wagner's general approach seems more productive than those discussed above. Since, however, we

<sup>2</sup> Dalton's famous attempt to apply the Pigovian approach in formulating his principle of maximum social advantage ends with the significant words: "Those who are oppressed by a sense of difficulty of this calculus should console themselves with the saying of the Ancient Greeks that 'it is not the easy things, but the difficult things, which are beautiful'." See his *Principles of Public Finance*, 4th ed., London, 1954, p. 11.

## INTRODUCTION AND SUMMARY

do not accept it entirely, a brief summary of his argument may be a useful preliminary to the explanation of our own position.

Starting from observable facts in a number of countries, Wagner asks what general causes there might be for a rising trend in public expenditures. He divides expenditures into four broad groups and, considering each in turn, produces reasons why the rate of growth of expenditures in the group should be faster than the rate of growth of community output. The arguments are held to be valid irrespective of the political and social nature of the society concerned; the more rapid rate of growth of public spending is inherent in the nature of the public economy.

On the positive side, Wagner's approach starts from the facts and tries to explain them. This appeals to us more than other analyses which, while logically more satisfying, have no relevance to the facts. Further, Wagner draws attention to the importance of the permanent influences upon public spending and to the effect of the increasing complexity of economic life upon the necessary functions of government.

Against this, Wagner's argument suffers from two serious defects. First, he adopts an organic theory of the state which we do not believe to be superior to other explanations of the character of the state, or to be equally applicable to different societies. Second, Wagner's interest is in the secular trend of public expenditures. There are other aspects of the development of public expenditures, such as the time pattern of expenditure growth, which seem to us equally significant.

Our own approach acknowledges the influences to which Wagner directs attention, but does not regard them as inevitably causing expenditures to grow faster than GNP in all societies or at all times. Indeed, if there are generalizations to be made about the relation between public expenditures and GNP, they should be concerned with the characteristics of social and economic change that require examination, and not with the "inevitable" results of such change. Also, we do not confine our attention to secular change, as Wagner did, but also consider (and attempt to explain) the time pattern of expenditure growth to be observed in the British statistics. We believe that the hypothesis we offer about this time pattern may be of some value for the explanation of the behavior of public expenditures. Finally, we do not base our discussion upon any all-embracing theory of the state; our sole "political" propositions are that governments like to spend more money, that citizens do not like to pay more taxes, and that governments need to pay some attention to the wishes of their citizens.

### *Working Hypotheses Developed in This Study*

It is fundamental to our thesis that decisions about public expenditure are taken politically, and so can be influenced through the ballot box or by

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whatever media citizens use to bring pressure to bear upon the government. Political choices about the use of resources differ from choices made through the market system. In particular, citizens can have ideas about desirable public expenditure which are quite different from, and perhaps incompatible with, their ideas about reasonable burdens of taxation.

When societies are not being subjected to unusual pressures, people's ideas about tolerable burdens of taxation, translated into ideas of reasonable tax rates, tend also to be fairly stable. Fixed, if low, rates of taxation are obviously compatible with growing public expenditure if real output is growing, so that there may be some connection between the rate of growth of real output and the rate of growth of public expenditure. Much more rapid rates of expenditure growth are unlikely; in settled times, notions about taxation are likely to be more influential than ideas about desirable increases in expenditure in deciding the size and rate of growth of the public sector. There may thus be a persistent divergence between ideas about desirable public spending and ideas about the limits of taxation. This divergence may be narrowed by large-scale social disturbances, such as major wars. Such disturbances may create a displacement effect, shifting public revenues and expenditures to new levels. After the disturbance is over new ideas of tolerable tax levels emerge, and a new plateau of expenditure may be reached, with public expenditures again taking a broadly constant share of gross national product, though a different share from the former one.

This displacement effect has two aspects. People will accept, in times of crisis, methods of raising revenue formerly thought intolerable, and the acceptance of new tax levels remains when the disturbance has disappeared. It is harder to get the saddle on the horse than to keep it there. Expenditures which the government may have thought desirable before the disturbance, but which it did not then dare to implement, consequently become possible. At the same time, social upheavals impose new and continuing obligations on governments both as the aftermath of functions assumed in wartime (e.g., payments of war pensions, debt interest, reparation payments) and as the result of changes in social ideas. Wars often force the attention of governments and peoples to problems of which they were formerly less conscious—there is an "inspection effect," which should not be underestimated.

Alongside the displacement effect, there is another influence, called here the concentration process. It is concerned not so much with changes in the total volume of public expenditures as with changes in the responsibility for such expenditures. In many societies, the functions of government are shared between a central authority and other (state and local) authorities whose powers may be protected by statute (as in legal federations) or conferred by the central government. In such countries local

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autonomy usually has many defenders, and its preservation is frequently a matter of political importance. At the same time, economic development produces changes in the technically efficient level of government, and also produces demands for equality of treatment (e.g., in services such as education) over wider geographical areas. These opposing pressures are reflected in the relative evolution of the expenditures undertaken at different levels of government. Clearly, this evolution is distinct from the displacement effect, since the forces just described operate in normal as well as in disturbed times. Nevertheless, given the political importance of local autonomy and the barrier it may create to change, periods of displacement are also going to be periods of interest from the viewpoint of the concentration process.

There are subsidiary aspects of this analysis not considered in detail here. For example, we do not assert that social disturbances inevitably produce lasting upward changes in government expenditure, nor do we suggest that the more permanent influences on the behavior of government (such as population change) can be ignored. We do suggest that, given a period when increasing state activity has been the rule rather than the exception and in which social disturbances have occurred, the concept of a displacement effect helps to explain the time pattern by which the expenditure growth takes place, and that no explanation that ignores it can be very satisfactory.

We believe these concepts provide a means of profitable organization of study of the statistics of the evolution of public expenditures, by use of which we can obtain some understanding of the processes of change. As a corollary, we believe it to provide a useful approach to that neglected aspect of economic history concerned with the evolution of fiscal systems. An explanation follows of our use of these ideas in the examination of the British statistics, and of our results.

### *Use of Conceptual Framework for Examination of British Statistics*

Our approach must incorporate examination of the time pattern of expenditure growth as well as consideration of the secular trend of public expenditures. At the same time, it must take into account both the displacement effect upon expenditures of periods of social disturbance (here the periods of the two world wars) and other more "permanent" influences (such as those suggested by Wagner) that may have affected the development of public expenditures.

We have tried to meet these requirements, first, by examining the other factors that might have affected public spending during the period, and then by eliminating these from the total expenditure series and considering how far the displacement idea is capable of explaining the data so adjusted. We then deal with the behavior of expenditures classified

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by responsible authority (the concentration effect) and with the expenditures of nationalized industries. The final chapter considers methods of projecting future British government expenditure.

We have already pointed out that the curve of total government expenditures (in current money terms) shows a peak and rising plateau pattern, which suggests that the growth in expenditures has come about through upward displacements in the periods of war. Our first task is to see whether this inference is destroyed when we take account of the more permanent influences. Two such influences, population and price changes, can be disposed of easily. The growth in population from the turn of the century until the present day has been about 22 per cent, which is certainly slower than the absolute rate of growth in government expenditure in money terms. Moreover, the irregular time pattern associated with the incidence of wars still remains in the statistics of government expenditure per head. Further, although there are many difficulties associated with the elimination of price changes, the peaks and plateaus still occur when the influence of price changes has also been removed. This elimination of population and price changes, however, reveals the real rate of growth of public expenditures per head of population to be much slower than the rate of growth of total money spending.

Another possible influence might be the business cycle as manifested in changes in the level of employment. But we show that, while there may be short-term increases in the ratio of government expenditure to GNP when there is a considerable rise in the unemployment index (particularly in the 1930's), no permanent upward shift in government expenditure can plausibly be attributed to the cycle. This is not to say that the Great Depression may not have had a profound influence upon attitudes toward public intervention, but rather that any such influence is not manifested in a permanent shift in public spending related to the periods of unemployment. It is possible to conclude, then, that the "permanent" factors influencing the level of government spending cannot satisfactorily explain the pattern of growth in public expenditures. We must look elsewhere.

Upward displacement of government expenditure has come during and after two major wars. The next possibility to consider, therefore, is how far the growth in expenditure can be explained simply as the direct and inevitable consequence of war for the continuing level of government spending in the postwar periods. Wars clearly affect public expenditures outside the immediate period of hostilities. We also need to consider the influence of peacetime spending on defense, which shares some common characteristics with the last group, but is sufficiently different to require separate examination.

We cannot know what government expenditures would have been in

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some hypothetical situation in which no wars had occurred. Nevertheless, if we find that "war-related" expenditures cannot account entirely for the displacement effect, we shall know that war itself cannot provide a complete explanation of the growing size of public expenditures. In fact, we find that as the influence of different types of war-related expenditure is cumulatively removed (even including peacetime defense expenditures, not specifically war related), the residual expenditures of government continue to show the peak and plateau sequence.

We can now examine the displacement effect over the period of the two wars in more detail. We begin by breaking down the national statistics; a classification by functional and economic categories gives insight into the changes that occurred at these times, and directs our attention, among other things, to the growing importance of social welfare spending. But the statistics cannot tell the whole story. Their value in the form just described is to guide us toward the facts of history that have been significant in encouraging the growth of public expenditures. The short survey which follows picks out some of those facts.

About the changed possibilities of government spending that have resulted from the two wars there can be little doubt. The exigencies of war produced significant improvements in tax administration, under the compulsion to increase government revenues. These changes, which would have been politically impossible earlier, were borne without protest. More to the point, the new burdens and methods became a lasting feature of British society.<sup>3</sup>

The government came out of the two wars, then, with the possibility of undertaking public expenditures on a much wider scale than before. But why should it wish to do so? There are two reasons, of the general kind earlier elaborated, and to which our statistical classifications direct attention.

In the first place, there is reason to believe that ideas about "desirable" expenditures and about "tolerable" taxation did begin to diverge over the period. From at least the time of the election of the Liberal Government of 1906, there was growing agreement about the desirability of increased public expenditure, particularly for purposes of social welfare. At the same time, the extension of the franchise began to increase the political power of those with most to gain from increased spending on

<sup>3</sup> Parliamentary discussion of the first Conservative Government budget after World War II, for example, was concerned, not so much about the continuance of a tax burden so much larger than that of 1937, but rather with the right distribution of the marginal gains and losses that would result from the budget changes. Such facts support the concept of a notion of taxable capacity that is "customary" in character, i.e., broadly unchanging in time of stability, but liable to violent adjustment in periods of upheaval. Further backing is provided by the contemporary observations of other economists (Bastable, Giffen, Clark) concerning the "limits" of taxable capacity.

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social services. Also, there were important changes in the character of Treasury control of expenditure; we count it to the credit of our approach that it has forced this neglected aspect of British fiscal history before our attention.

As we should expect, however, these developments give a less than complete picture. They provide a part of the explanation of the secular growth in public spending, but tell us little about the time pattern of growth, and particularly about the effect of wars in changing social ideas. The second group of reasons for the growth of British Government expenditure, then, concerns those developments that relate to periods of war; all we can do here is to illustrate how the concept of displacement provides a useful guide to the relevant and important facts of history.

As major wars have come more and more to affect all sections of the community, both through demands of the military services and through such things as air raids on the homeland, the lasting social effects of war have become more profound. In the first place, wars generate an "inspection process"; the emergency brings the government and the citizens new knowledge about the nature of society. This phenomenon has roots in the past; it was the Napoleonic Wars which first laid bare the deficiencies in education of the "lower orders." More recent wars have been the means of directing attention to deficiencies not only in education but also in health services and housing conditions. At the same time, war produces a feeling of community, encouraging support for extensions of the public sector increasingly as its effects come to be more directly felt by the whole community. Indeed, as Titmuss has shown, provision of social services in World War II became an integral part of the British war effort and war aims.<sup>4</sup> The development of the National Health Service was thus the immediate outcome of wartime bombing which made the replacement of voluntary hospital services a necessity, and also the response to a community desire for continuing provision of state health services on a larger scale. Such illustrations could be multiplied, as will be seen in Chapter 5.

The characteristics of the concentration process during our period are dealt with in Chapter 6. The statistics do show such a process, manifested as a failure of the expenditures and direct revenues of local authorities to share fully in the growth of total public expenditures. Moreover, the process is an outgrowth of displacement within those periods, especially of World War II, since it is the growth of central government functions over those periods that has brought about the relative decline in importance of local authorities as spending agents of the central government. The changes have come about in a variety of ways—concentration of new

<sup>4</sup> See, R. M. Titmuss, "Problems of Social Policy," *History of the Second World War*, Civil Series, London, 1950, Chapter XV.

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governmental functions at the center, shifting of local responsibilities to newly created authorities such as nationalized industries, and so on—which cumulatively have changed the nature and relative importance of local authority functions.

Nationalized industries are included in Chapter 7 for the sake of formal completeness. The available data on net expenditures of these enterprises cover only part of our period and are left outside the general statistics. But they are presented both because of the current importance of nationalized enterprise, and because many of the activities concerned (such as electricity supply) were controlled earlier by some other public body, and hence affect our statistics for the period before the present organization was established. Besides, we believe even the restricted material presented can be used to demonstrate the utility of the displacement concept, which is fundamental to our general approach to the interpretation of government expenditure statistics.

In the final chapter, we have made use of our suggested approach, albeit in a very general way, to offer a projection (but not a forecast) of British government expenditure in the immediate future. We do not subscribe, despite the influence of prevailing fashion, to the view that the sole purpose of economics is to formulate hypotheses that enable prediction. We are not bold (or foolish) enough to attempt such prediction, but we do believe that a discussion of methods of projection based on the assumption that social disturbances will be absent, and formulated in a fashion similar to that found useful in the interpretation of the historical data, can be valuable as a guide to policy. Too often, policy issues involving changes in the size and character of public expenditure are discussed in terms of some vaguely specified and inadequately quantified future "burden." We believe our approach to be more informative in defining the range of possibilities.

Our aim is simply to introduce clarity by making quite specific assumptions about particular groups of expenditures and other relevant magnitudes and by translating them into money values. Our assumptions are not the only ones possible; further enlightenment can be obtained by computing the results of changing them. It is our view that such a procedure can provide a more realistic basis for policy argument than is common in this field. Support for that view appears in the outcome of our projection, showing a much larger scope for the peacetime growth of British public expenditures (or for the reduction of taxes without reducing public services) than is generally believed possible.

### *Bearing on Future Research*

It is appropriate to conclude with a consideration of the possible bearing of our study on future research. To reiterate our general position: We

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are not trying to formulate some general "law" which governs the growth of public expenditure in all circumstances. Nor do we believe that our concepts of displacement and concentration will be equally significant, in all countries and at all times, and relative to the "permanent" influences on expenditure growth, as guides to the evolution of public spending. Not all countries have been equally affected by social disturbances, and not all countries have the same political system. Nevertheless, we feel that the general approach, using these concepts alongside the facts about absolute expenditure growth and its historical time pattern, provides a useful technique for imposing order upon the study of government expenditure generally. Indeed, we feel sufficiently confident of the value of our approach to have embarked on a comparative analysis of a number of other countries, using the same general technique.<sup>5</sup> It is perhaps of particular interest to compare our conclusions with those reached in recent studies of government expenditure growth in the United States.

We can draw upon four recent studies.<sup>6</sup> Most of the authors rely upon the *Historical Statistics of the United States, 1789-1945, 1949*,<sup>7</sup> and the Department of Commerce national income series, which show only selected years for the period before 1929. The exception is Kendrick, who is concerned solely with the federal government, which played a much smaller role than the British central government did in the overall development of public expenditures in the same period. All these studies point to the importance of the two World Wars as influences upon the growth and structure of government expenditures. Kendrick notes the same plateau effect with reference to federal expenditures, and Musgrave and Culbertson show that war-related expenditures cannot account entirely for the trend increase in expenditure.

Most interesting from our point of view is the study of Colm and Helzner. These writers demonstrate the importance of war in the evolution of United States expenditure patterns. They note that if defense expenditure and social insurance are excluded from consideration, the relative

<sup>5</sup> A comparative study of twenty to twenty-five countries is now under way, sponsored jointly by the University of Edinburgh and the London School of Economics and Political Science and financed out of a Ford Foundation grant. Findings so far confirm the value of the general approach, though of course the character and importance of displacement vary from country to country.

<sup>6</sup> Solomon Fabricant, assisted by Robert E. Lipsey, *The Trend in Government Activity in the United States since 1900*, New York, National Bureau of Economic Research, 1952; R. A. Musgrave and J. M. Culbertson, "The Growth of Public Expenditures in the United States, 1890-1948," *National Tax Journal*, June 1953; M. Slade Kendrick, *A Century and a Half of Federal Expenditures*, Occasional Paper 48, New York, NBER, 1955; G. Colm and M. Helzner, "The Structure of Government Revenue and Expenditure in Relation to the Economic Development of the United States," in *L'Importance et la Structure des Recettes et des Dépenses Publiques*, International Institute of Public Finance, Brussels, 1960.

<sup>7</sup> Supplement to *Statistical Abstract of the United States*, Bureau of the Census, Department of Commerce.

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proportions of the remaining federal and state expenditures have not altered over the period, but as a result of war—and this is interesting in view of British experience—the distribution of tax receipts has shifted in favor of the federal government. Moreover, their explanation of government expenditure changes, while placing much more emphasis on the changing structure of the economy accompanied by spectacular urban development, is similar. They state that “the traditional resistance to central government control has weakened only in time of war or serious depression. Thus, government functions do not always respond gradually to the needs of an industrial and urban (suburban) society. An increase in government activity or responsibility often depends on events happening which dramatize the need for such measures and help to overcome traditional resistance.”<sup>8</sup> Our views receive support from their emphasis on the increase in tax rates and the broadening of the income tax base during World War II.

There is one striking difference between the United States and the United Kingdom. The Great Depression had surprisingly little effect on the trend of government expenditures in the United Kingdom; there was no displacement effect. On first examination, the depression in the United States would seem clearly to come within our category of social disturbance of a major character; the upward displacement particularly in federal expenditures was most marked.

It would also be interesting to investigate and compare further the influence of the growth and the distribution of population on government expenditure in both countries. Probably the proper parallel for the influence of urbanization on public expenditure would be mid-nineteenth-century Britain with mid-twentieth-century United States.

However, these are questions for future examination. All we wish to suggest is that the technique developed in this study of Britain, if applied to other countries, gives promise of illuminating results.

<sup>8</sup> Colm and Helzner, *op. cit.*, pp. 60–61. They illustrate their point with reference to the growth in education expenditures.

