Volume Title: The Growth of Public Expenditure in the United Kingdom

Volume Author/Editor: Alan T. Peacock, and Jack Wiseman

Volume Publisher: UMI

Volume ISBN: 0-87014-071-X

Volume URL: http://www.nber.org/books/peac61-1

Publication Date: 1961

Chapter Title: Determinants of Government Expenditure

Chapter Author: Alan T. Peacock, Jack Wiseman

Chapter URL: http://www.nber.org/chapters/c2304

Chapter pages in book: (p. 12 - 34)

CHAPTER 2

Determinants of Government Expenditure

THE subject of government expenditures has not received much or satisfactory attention from economists or students of public finance. It can hardly be said that he who wishes to study the subject finds the tools of analysis necessary for the interpretation of public expenditure data lying ready to hand. "The tremendous growth of government expenditures here and abroad," says Lowell Harriss, "has been one of the striking economic developments of recent years. Economic analysis of these changes has dealt primarily with the probable effects on levels of employment and prices. . . . On the whole, however, the analytical results are generally unsatisfactory. Economists specializing in public finance have generally concentrated on taxation. Perhaps there is not much more that the economist can say about spending. The nature of the problems, especially the unavailability of bases for appraising results, make study difficult. Description, and the statement of rather obvious generalities, may about exhaust the possibilities."[1]

This position cannot be accepted without misgiving. Economists like to feel that their studies have a bearing upon issues of public policy, and commonly pass judgment on such issues. But what significance can such judgments have for a world in which government spending activities frequently account for 25 to 40 per cent of community output, and the characteristics of these activities go unexplained? We must surely seek further insight if progress in other fields is not to be nullified by our inadequacy in this one. Further, as explained previously, our purpose is to evolve and to test against our data for Britain tentative hypotheses that might be generally valuable for understanding the behavior of government expenditures over time. A first and essential step must be to establish hypotheses that seem worth the trouble of testing. With this in mind, we devote the next section to those earlier writings which presumably generated Harriss's pessimism.

The Study of Public Expenditures

THE WELFARE THEORIES

Historically, many economists have approached the study of public expenditures from a prescriptive point of view; it was perhaps this group more than any other that encouraged the comment quoted above. Such studies attempt to set up criteria for the size and nature of government

[1] C. Lowell Harriss, "Public Finance," *A Survey of Contemporary Economics*, B. F. Haley, ed., Homewood, Ill., 1958, II, 261–262. It should be pointed out that Harriss has done much to remedy the deficiency. See, e.g., his "Government Expenditures: Significant Issues of Definition," *Journal of Finance*, December 1954.

expenditures and income by utilizing techniques usual in the study of market economics.[2] Starting from some concept of economic welfare, defined in terms of individual choice, they attempt to specify the taxing and spending activities of government that would conduce to the ideal conditions of such welfare. At the extreme, this leads to proposals for systems of public finance in which the government provides only the services that individuals would pay for directly, if that were feasible, and levies only such taxes as individuals would voluntarily pay in return for the services they receive. This transference of the concepts of individual choice in markets to the activities of government can lead to such peculiar "liberal" suggestions as the proposition that those who are unwilling to pay taxes in such a situation are "pathological."[3]

Alternatively, the government may be regarded by such writers as a unitary being, with tastes and preferences like other beings. Its income and expenditure can then be examined as those of an individual, and the size and character of the public sector prescribed by the application of marginal criteria similar to those generally employed, for instance, in the study of individual consumers.[4] Further sophistication can be introduced by recognizing that people can "choose" to use the political process rather than the market to make decisions about the utilization of economic resources. The political voting system is in this context an alternative to the market voting system. This approach leads to consideration of alternative political voting systems, but with a view primarily to the discovery of what kind of system will best achieve the postulated objective: attainment of the "ideal" conditions of individual choice. The ideal political system is thus regarded as one that best promotes economic liberalism, and the ideal volume and type of government expenditure is that which such a system would generate.[4a]

These theories all derive from, and to varying degrees depend upon, the system of market analysis that is commonly known as welfare economics. There is considerable and growing skepticism among economists as to the value of welfare economics as a basis for economic policy and as a starting point for the study of actual economies. To the extent that such skepticism is well founded, the associated theories of public expendi-

[2] Such studies have a long and continuing history. See R. A. Musgrave and A. T. Peacock, eds., *Classics in the Theory of Public Finance*, London, 1958, Introduction. In recent years, there has been considerable discussion of the topic by P. A. Samuelson, S. Enke, and J. Margolis in the *Review of Economics and Statistics* (November 1954, May 1955, November 1955, November 1958).

[3] F. Benham, "Notes on the Pure Theory of Public Finance," *Economica*, November 1934, p. 453.

[4] A. C. Pigou, *A Study in Public Finance*, 3rd rev. ed., London, 1947, Part I, Chapter V.

[4a] A sophisticated discussion of political and market choices is to be found in J. M. Buchanan and G. Tullock, *The Calculus of Consent: A Preliminary Analysis of Individual Constitutional Choice* (forthcoming).

ture must become more dubious. But this need not concern us here, important though it may be in other contexts. What is more destructive, from our point of view, is the fact that although these theories of government income and expenditure purport to be prescriptive in nature, even the most sophisticated of them (which do at least admit consideration of voting systems) treat the problems of government and political behavior in a fashion that any political scientist must consider unrealistic. No government is concerned, as the theories imply, solely with interpreting the choices of the individual members of the community. All governments depend for their existence upon their power to coerce as well as upon the consent of the governed, though the importance of these two ingredients may vary from one country to another.

In short, governments have not in the past tried to achieve the aims that the welfare theories postulate for them, and, however much we may deplore the fact, they are unlikely to do so in the future. Consequently, these prescriptive theories are simply not operational.

GOVERNMENT EXPENDITURE AND ECONOMIC GROWTH

The development of Keynesian theories of economic stability has encouraged consideration of government expenditures as one element in a macrostatic model. The more recent and growing interest in the associated problems of economic dynamics and economic growth, a marked characteristic of economic studies since World War II, has stimulated further interest in public expenditures along similar lines.[5] The work of this second school is of particular interest from our point of view.

To be of value for our purposes, however, it is necessary that the models of the growth theorists should incorporate some plausible and realistic theory as to the relationship between the time evolution of public expenditures and of other magnitudes of economic interest. There is no point (even if there were a possibility) in trying to interpret the statistics of actual public expenditures by reference to a model incorporating assumptions about their evolution that have been dictated by analytical convenience rather than by inherent plausibility. This is, of course, a perennial problem, and its importance for this study is especially clear. We may be able to use a theory of economic growth which incorporates some explanation of the place of the public sector (and of public expenditures in particular) in the general explanation of the economic growth process, but we can do little with a theory which ignores the public sector altogether, or treats it as an unfortunate nuisance to be got rid of by global and unconvincing assumptions. In the words of Domar, ". . . gov-

[5] See, e.g., R. F. Harrod, *Towards a Dynamic Economics*, London, 1948; E. Lundberg, *Studies in the Theory of Economic Expansion*, Stockholm, 1937; and E. Domar, *Essays in the Theory of Economic Growth*, New York, 1957.

ernment is the most troublesome of the three [forms of expenditure] because we have no theory of government expenditure. In its absence we may dump government expenditure on top of the other two as an exogenous factor, merge it with consumer expenditure . . . or assume it away altogether. This last suggestion is certainly the most convenient of all and such treatment of a troublesome factor is richly supported by precedents in economic theory."[6] For Domar, as for those who have developed static Keynesian models, aggregate government expenditure is either to be left outside the system of mutual determination of the economic model or assumed to be zero. Neither treatment is particularly satisfactory. Government expenditure is clearly not usually nonexistent, and it is implausible to argue that it neither influences economic growth over time, nor is itself influenced by that growth.

More recently, some writers have tried to incorporate a more positive theory of the public sector (including an explicit or implicit theory of public expenditure) in long-period growth models.[7] While these models are certainly an improvement, from our point of view, on what went before, it cannot be said that either their formulation or their present degree of refinement makes them suitable for our immediate purpose. The models cannot be discussed in detail here; it must suffice to point out the general ways in which they continue to be unsuitable.[8]

It is possible to criticize such models, in the first place, on the ground that the number of variables that they take into account is much smaller than is necessary for their satisfactory utilization for purposes of economic policy or for the interpretation of history. There are, for example, awkward problems remaining to be tackled in relation to the treatment of transfer payments and the effective incidence of taxes and public expenditures. But other objections are of more significance in the present context. In particular, the models cannot easily take care of changes in the coefficients of the constituent variables, whether such changes are induced by the process of growth itself or whether they result from historical eventualities incapable of inclusion in a generalized economic growth model. This difficulty has particular importance in the sphere of government: Can we really expect either the character and determinants of government

[6] Domar, *op cit.*, p. 20.

[7] See J. G. Gurley, "Fiscal Policy in a Growing Economy," *Journal of the Political Economy*, December 1953, pp. 523–535, with reply by Warren L. Smith, *ibid.*, October 1954, pp. 440–441; also Smith, "Monetary-Fiscal Policy and Economic Growth," *Quarterly Journal of Economics*, February 1957, pp. 36–55, and A. Smithies, "The Control of Inflation," *Review of Economics and Statistics*, August 1957, pp. 282–283. For a model of a different order, see K. Kurihara, "Growth Models and Fiscal Policy Parameters," *Public Finance*, 1956, pp. 148–161.

[8] A fuller discussion of the problem is to be found in Alan T. Peacock, "The Public Sector and the Theory of Economic Growth," *Scottish Journal of Political Economy*, February 1959.

behavior, or the precise impact of that behavior upon the rest of the economy, to remain constant over any long period of time?

It is the third group of objections to these models, however, which is decisive from our point of view. Perhaps in order to cope with the difficulties already described, growth models have been developed in the direction, not of providing a more and more realistic picture of actual economies, but rather towards providing more and more prescriptions for the simplified societies described in the models themselves.[9] Thus, a typical procedure is to begin from some statement of objective (or simple set of objectives) such as the maintenance of a prescribed stable rate of economic growth. Then, using a model assuming, for example, the initial absence of government activity, and postulating defined relationships between a chosen group of variables, the necessary tax and expenditure policies required to attain the defined objective are discovered. In other words, the structure of the public sector is prescribed by the initial assumptions and characteristics of the defined model. The actual behavior of governments is not considered, and often the question of whether the objective is one which any government is likely to wish to pursue, or to pursue exclusively, is also left aside. The alternative would be to try to evolve a theory of the public sector from a study of the actual process of decision taking at different levels of government and at different periods of time and in different countries, and to incorporate the results in a generalized growth model. It seems unlikely that such a procedure would produce anything more than considerable distrust of models incorporating a government sector. Nevertheless, failing some such study, the growth models in their present form cannot be treated as anything more than exercises in a technique of arrangement.

WAGNER'S LAW

There is another school of thought about public expenditures, also with a long and continuing history, but explanatory rather than prescriptive in character. Its aim is to establish generalizations about government expenditures, not from postulates about the logic of choice, but rather by direct inference from historical evidence. The approach is perhaps better known on the continent of Europe than in Britain or the U.S., and therefore requires rather full explanation. It was encouraged by a growing awareness towards the end of the last century (i.e., at the beginning of our period) of the correlative growth of community output and public expenditure that was observed in a number of countries (e.g., Prussia, Bavaria, Britain, North America, Switzerland). These countries had in common a rising trend of output per head, but differed markedly in other

[9] In this respect, at least, the growth theories are similar in essential character to the welfare theories described earlier.

important respects. Attempts were made to explain the phenomenon by growing military and national debt commitments, but the increases in expenditure affected too many other services, and the military and debt commitments varied too much from one country to another for this to be plausible. Consequently it came to be argued that the data supported the existence of some kind of general "law" relating the growth of output per head and the growth of government spending. Clearly, the existence and character of any law of this kind, if it can be established, must be a matter of importance for our study.

In general, economists writing at the turn of the century inferred no more than that the available statistics suggested a "law" that government expenditure must grow in proportion to a community's output per head. This was the view of H. C. Adams, writing in America in 1898.[10] In the same period, however, Continental writers of the Younger Historical School, and particularly Adolph Wagner, went further than this, arguing that government expenditure must increase at an even faster rate than output. Wagner's influence continues to pervade Continental writing on problems of public expenditure. The core of his argument, in his own words, is that "The law [of increasing state activity] is the result of empirical observation in progressive countries, at least in Western European civilization; its explanation, justification and cause is the pressure of social progress and the resulting changes in the relative spheres of private and public economy, especially compulsory public economy. Financial stringency may hamper the expansion of state activities, causing their extent to be conditioned by revenue rather than the other way round, as is more usual. But in the long run the desire for development of a progressive people will always overcome these financial difficulties."[11]

The first point of importance about this argument is its implication that the growth in expenditure derives from the growth in state activity, which is in itself the consequence of social progress. In other words, Wagner's "law" is really a law of increasing state activity: to the extent that such increased activity is the inevitable accompaniment of social progress, and only to that extent, increased expenditures are inevitable also. It is also clear from the quotation that the law is concerned with the secular behavior of expenditure rather than with short-run change or the actual *process* of change. Further, Wagner does not suggest that the actual extent of state activity can be fixed *a priori*. His concern is with the rate of growth of expenditure; he cites as proof of his law the fact that for a number of countries it was empirically verifiable that as

[10] H. C. Adams, *The Science of Finance*, New York, 1898, Chapter 2.
[11] Adolph Wagner, *Finanzwissenschaft*, Leipzig, 1890, 3rd ed., Part I, p. 16.

output per head increased in the past, state activity and expenditure grew more than proportionately.

To explain the existence of the law, Wagner distinguished between three types of state activity. These were the maintenance and enforcement of law and order internally and externally (*Recht- und Machtzweck:* roughly, the provision of the necessary social preconditions for markets to function), participation in material production, and the provision of such economic or social services as postal, education and banking services. Separate reasons were adduced for expecting the law to hold for each type of activity.

For the first group of activities, he suggests, the need for increased participation by the state originates in the "inevitable" centralization of administration and in the "atomization" of social and economic life that result from economic development. At the same time, the state has to increase its activities in order to ensure the maintenance and improvement of the quality of the services it provides. Also, increasing division of labor multiplies the complexities of economic life and hence the possible causes of friction. Thus if the economy is to function efficiently, state activities of both a preventive and a repressive character have to increase. Growing state participation in material production (the second type of state activity) develops because new technical processes (Wagner was thinking particularly of steam power) make the public corporation the only alternative to the joint stock company. In his view, it is a necessary and a preferable alternative, because the joint stock companies might not be able to handle large amounts of capital as effectively as a public corporation, and because private enterprises mismanage and waste capital during business cycles and enhance such cycles by causing speculative disturbances. Finally, increased activity of the third type (provision of other economic and social services) must arise where technical developments produce favorable conditions for monopolies, where the social benefits of the service are not susceptible to economic evaluation (e.g., education), and, once again, where the state could become a source of stability by taking over large enterprises whose dominating influence encourages instability.

Wagner himself did not put forward his law as perpetual and ineluctable, like the law of gravitation. On the other hand, he did consider it to be something more than a simple historical accident; he expected the law to hold at least for the near future, that is, for at any rate some part of the period of our study. So interpreted, the law is still subject to important criticisms. It is based upon historical evidence, but its acceptance as anything more than a statistical observation requires acceptance also of Wagner's own very special view of the nature of the state as a political entity. True, he adduces reasons why government expenditure

will increase in any developing state, and some of these reasons are technical in character and might be expected to operate whatever view is taken of the role of the state. But these are only a part of his argument, and would not alone justify the expectation that public expenditures must always rise at a faster rate than community output. Further, careful examination suggests that what appear to be simply technical reasons for expenditure growth in Wagner's exposition are often not independent of his views about the state. Thus, his most concrete proposition as to the nature of the increased expenditures of government is the argument from stabilization. At first sight, this has a surprisingly modern look, in that subsequent developments in macroeconomics have encouraged the view that a large public sector may be necessary for purposes of employment policy. This view is perhaps coming to be less widely held, at least without considerable qualification; economists are indeed beginning to treat the possible rigidities of public sector expenditures themselves as a source of price and employment fluctuation.[12] In any case, Wagner's argument is really very different from the more modern one. Certainly, he believed that the creation of public corporations could help to reduce instability. But he does not demonstrate why all countries must always treat economic stability as an important aim of policy, and his basic reason for expecting a growth in the importance of public corporations lies elsewhere—in his own conviction of their general superiority to private joint stock enterprise. Similarly, his assertion that other public services must expand both qualitatively and quantitatively as output rises stems not only from technical considerations, but also from Wagner's view that it is the duty of the state to behave in this way.

It cannot be accepted, then, that Wagner succeeded in demonstrating that a secular increase in community output must inevitably produce a more than proportionate secular growth in the importance of government services. Ultimately, the law of increasing government expenditure is a corollary of the political philosophy and interpretation of history that Wagner accepted. His "proof" of the existence of such a law, therefore, depends upon the validity of the organic theory of the state upon which he relies. But there are many other interpretations of the nature and duties of the state, not demonstrably less valid than the views held by Wagner. For example, J. Shield Nicholson was writing in Edinburgh in 1903: "In the progress of society, moreover, it is necessary to incur new modes of expenditure. No provision of machinery to meet old wants will suffice for the satisfaction of new demands. In many cases, however, the expense ought to be met not by increased taxation, but by substitution. With increase of wealth the increasing demands for education ought to

[12] See, for example, W. Drees, Jr., *On the Level of Government Expenditure in the Netherlands after the War*, Leiden, 1955.

be partially met, at any rate, by diminished demands from the poor; as the education rate rises, the poor rate ought to fall."[13] Why should Wagner's law operate in a country where such views might be accepted?

A Suggested Approach to the Study of Public Expenditures

We must now ask whether there is any alternative approach which might be potentially more fruitful than those so far discussed, and we can usefully broach this question by considering first of all what is worthy of retention in the existing approaches.

The preceding discussion suggests two general propositions from which we might start out. First, insofar as we attempt to establish generalizations that we might expect to have validity for more than one country (and which we can subsequently test against our sample of one), those generalizations must inevitably be concerned with procedure rather than prescription. Our aim should be to provide enlightenment as to how public expenditures can be expected to behave, of a kind that might be of value in the study of countries other than Britain, rather than to try to compare the facts of expenditure growth with some "idealized" model. That is, any general hypotheses should be concerned with the likely characteristics of expenditure growth in actual communities, taking all necessary account of the economic, political, and social differences between one community and another.

Second, and arising partly out of the above, our broad approach must follow that of Wagner rather than that more familiar to British and American economists, since, like Wagner, we are concerned with the actual facts of public expenditures. But we shall need to adapt and modify this approach. It is also of relevance to this decision that the available evidence for a number of European countries during the present century does show a public expenditure growth of the character that Wagner prophesied, and this has persuaded later writers (particularly Continental writers) that his law continues to be valid. Indeed, as one authority points out, the rate of growth of such expenditures in many countries has been faster than Wagner himself would have expected.[14] This, and the fact that Wagner's argument certainly directs attention to matters of real practical significance in the historical development of public expenditures, suggests that dissatisfaction with the law as Wagner argued it ought not to prejudice us against his general approach.

Further study along these lines, seeking the kind of hypotheses described, and using Wagner's general approach while rejecting the conclusions he reached by it, can take two directions. We can examine afresh the possibility that there are permanent influences affecting government

[13] J. Shield Nicholson, *Elements of Political Economy*, London, 1903, p. 510.
[14] See G. Schmölders, *Finanzpolitik*, Berlin, 1955, Chapter IV, pp. 125–140.

expenditure at all times and in all societies, and that these must generate expenditure growth in developing societies, irrespective of their political and social characteristics. This may help us to decide whether the search for general hypotheses about government expenditure growth is either plausible or useful, and should in any case indicate some influences on expenditure that we cannot afford to ignore. At the same time, there is no reason why we need confine our investigation to the relationship (between the secular growth in government expenditure and in community output) that interested Wagner. A second direction for study is suggested by the fact that even a superficial examination of the recent history of public expenditures indicates other questions, a consideration of which might possibly be productive of fruitful hypotheses. It is in these two directions that our own approach evolves.

PERMANENT INFLUENCES ON GOVERNMENT EXPENDITURES

In considering whether there are any permanent influences on the size of public expenditures (i.e., forces operating continuously to affect the size of such expenditures), we can suitably begin by some further examination of the consequences of the increasing complexity in economic life, to which Wagner directed attention. It is certainly true, as he pointed out, that as an economy develops the tasks of the organs and institutions of the government (e.g., in making and enforcing laws, providing a police force and an army, governing large towns) must both change in character and become more intricate and difficult. This may well make for some growth of government expenditure on those functions with economic progress, and it is also likely to stimulate changes in the nature of the responsibility for expenditure, as the efficient scale at which public activities of particular kinds can be carried on will change.[15] But the nature and extent of the growth in government expenditure due to such causes must depend upon the specific circumstances being considered. There is no reason to believe, for example, that the impact of the development of the internal-combustion engine and electric power has been of the same character and importance from this point of view as the results of the use of steam power of which Wagner wrote. Also, it must not be forgotten that technical change affects not only the problems of fulfilling particular tasks of government, but also the means available for the performance of those tasks. Thus, whether a government which tries to maintain a given level of services over a period of economic and technical change will absorb an increasing share of community output as a result depends on how the process of change affects the relative productivity of the resources (including labor) used in the public and private sectors. There is no reason to expect that relative productivities will change in the same

[15] See Chapter 6.

way in all societies at all times; this must be a matter for empirical verification in each case.[16] Consequently, there can also be no certainty about the consequences of growing complexity, or of economic development *per se*, for the behavior of government expenditure; there is no point in trying to adumbrate some general hypothesis that might be valid for all times and places.

Analogous to questions of the effects on the cost of providing public services of changes in the character of economic life, there are questions raised by economic development on the demand side. Such development makes available new forms of consumption, and it is possible and perhaps likely that countries will want to indulge these in part by increasing expenditure on government-financed communal consumption. For example, insofar as a rising GNP is associated with the devotion of an increasing proportion of consumption to services, there is some reason to expect the share of government to increase. Services constitute an area in which government provision may be efficient and in which private markets may function unsatisfactorily, whether because of difficulties in making charges, in assigning benefits to individuals, or in taking account of the "community" (as distinct from individual) benefits to be obtained from expenditures on such services as education. However, development also brings with it at least one similar influence to reduce government expenditure: the fact that as the general level of individual income rises, dependence upon the state for the relief of extreme poverty and distress ought to diminish in importance. On the other hand, it is plausible to argue that the criterion of poverty and distress which determines who is to be helped by the government, and how much, is not absolute but is, within broad limits, conventional. Attitudes may differ from society to society, but there is likely to be a broad general relation between the standard of life of a community and its views about a tolerable level of existence to be provided by the government for those in need. Further, the causes of poverty and distress are likely to change radically as a society develops. The nature, incidence, and problems, e.g., of unemployment may become quite different. It appears to be even more difficult to make any positive and general assertion about these "demand" influences on the level of government spending than about the "cost" influences.

The influence of population change must also be considered. The total output of a community can increase without output per worker rising, as a result of population increases. Rising total output might well be associated with constant or falling output per head and thus with an increasing need for government expenditures on services concerned with

[16] For an empirical study of this kind, see Solomon Fabricant, assisted by Robert E. Lipsey, *The Trend of Government Activity in the United States since 1900*, New York, NBER, 1952, Chapter 5.

the relief of distress, and simultaneously with increasing difficulty in transferring resources from the private to the public sector.[17] In these circumstances the relation between government expenditure and population change is unlikely to be simple, predictable, or constant over time or between societies. If on the other hand we restrict ourselves to consideration of the effects of increasing output per head of population (the definition of a developing economy implicit in much of our earlier discussion), an increasing population becomes more likely to be associated with rising total government expenditure, though not necessarily with increasing expenditure per head. But the effects of population change are still not easy to forecast even in this case, since government expenditure is likely to be affected not only by changes in total numbers but also by changes in the composition of population (number of pensioners, children, and so on). Many types of expenditure are designed to meet the needs of particular groups and tend to be affected by the numbers in those groups rather than by the size of the population as a whole, and there is no reason why the numbers in any group should vary directly with total population.[18] The dangers of attempting to make any general proposition become even more apparent when it is recognized that changes in population almost inevitably follow an irregular time path, whether we consider total numbers or detailed composition. Any general expenditure "law", therefore, would either have to operate despite population change or be restricted in relevance to the periods (if there are any) in which trends in total numbers and in composition are broadly constant. As a further complication, there is one particular relation between population and government spending which requires special mention: where rising output per head and increasing population occur together, there is often a simultaneous growth in the size and importance of conurbations. This reinforces the argument that increased public expenditures may be required to deal with the growing complexity of economic activities. Also, the growth of urban populations may affect the methods used by governments to control their expenditures and the relationships between different types of public authority. Growing urbanization was in fact important during the period studied by Wagner, and is relevant for our own period. Nevertheless, it is no basis for a general law of expenditure, but rather a special influence that may or may not be significant in any country or time period.

Similar difficulties are found when we turn, finally, to the influence of

[17] This is very likely to be the position, e.g., in a less developed country with a population problem.

[18] For a practical illustration of this point, see F. W. Paish and A. T. Peacock, "The Economics of Dependence, 1952–82," *Economica*, November 1954, and *Report of the Committee of Enquiry into the Cost of the National Health Service*, Command Paper 9663, 1956, pp. 37–45; also Chapter 8 of this book.

changes in prices and in the level of employment. Such changes may indeed affect the volume and the pattern of public spending in some circumstances. But since prices and the volume of unemployment can either rise or fall, it is not easy to see how these factors could operate in a secular fashion to create changes in the importance of government expenditure; once again, a general law would have to operate despite changes in these magnitudes, or be restricted to periods in which they followed one simple trend.

The diversity and complexity of these possible general influences upon public expenditures is apparent, and we do not believe that the factors just discussed exhaust the possibilities. But there certainly do not seem to be any permanent influences upon government spending capable of supporting the assertion contained in Wagner's law, or of suggesting some general hypothesis that might be expected to explain the behavior of government expenditures through time. The most definite general statement that it might be possible to make on the basis of our examination of these permanent influences is that government expenditures are perhaps more likely than not to increase in absolute real volume as a country develops economically. Also, it is quite possible that the rise of expenditures will be at least as fast as the secular rate of increase of national product. But there is nothing inevitable about this; not all the consequences of development encourage such a rate of growth of public spending. In fact, the behavior of public expenditures over any period depends on factors that can differ in influence and importance from one time to another and between one country and another. Further, we must add an additional (and fundamental) argument, so obvious as to need no discussion: changes in the size of the government sector and hence of public expenditures are bound to be affected by the political nature of the society concerned and by current views about the role of government. We have discovered no reason why the general influences arising out of economic and other change should be expected to reduce these political factors to unimportance.

In sum, we must clearly not ignore the permanent influences on expenditures which were so important to Wagner, but neither must we expect them to give rise to general hypotheses about public expenditures in general, or even to provide a complete explanation of the facts in any country over any particular period.

THE DISPLACEMENT EFFECT AND THE CONCENTRATION PROCESS

Both the secular character and the "historical inevitability" of Wagner's law make difficulties for the development of ideas about government expenditure that will be useful in considering shorter-term questions. Having abandoned the law, though without denying the importance of

many of the characteristics of government expenditure to which it draws attention, we can pursue these other ideas more freely. In doing so, we shall be attempting less than Wagner but may achieve more, at least of a practical nature. We must seek, not universal secular laws, but a way of looking at the year-to-year changes in government spending that will not only illuminate the British statistics which are our direct concern, but also give us an approach to the subject that might be equally fruitful in studying other countries or periods, in interpreting the facts of history or in introducing realism into the discussion of present and future expenditure policies.

As a first step, let us consider some broad facts about the expenditures of Western governments during this century, concerning ourselves not with secular trends but rather with the precise fashion in which the actual changes have taken place. One immediately evident fact is that while government expenditure has clearly grown (at least in money terms) over the period as a whole for all countries for which adequate statistics are available, the time pattern of growth is less regular than, and quite different from, the corresponding pattern of growth in the size of community output. An inspection of Chart 1 (Chapter 3) makes this clear for Britain, and evidence is available of a similar pattern of change in other countries.[19]

The previous quotation from Wagner indicates that he was aware of at least one possible reason for these divergent time patterns—the dependence of governments upon revenues raised by taxation.[20] But it was not a question that he was interested in pursuing, as his concern was with the secular trend of expenditures and he did not believe these to be affected by the short-run problems of raising revenue. If we are to concern ourselves also with short-run phenomena, however, we must consider the reasons for the time pattern of expenditure growth with more care. Typically, the time chart of government money expenditures describes a series of mountain ranges, with peaks of increasing height separated by plateaus. In the British case, the major peaks occur in the periods covered by the two world wars. There is, of course, obvious reason to expect the share of community output taken by the government to rise in wartime; the divergence in the time patterns of the two series under discussion would be of little interest if it could be attributed simply to this. In fact, it cannot. Although British government expenditure declines after the wars, it does not return to the prewar level, and a

[19] See Schmölders, *op cit.*; and for information on the U.S., see M. Slade Kendrick, *A Century and a Half of Federal Expenditures*, Occasional Paper 48, New York, NBER, 1955.

[20] To repeat part of that quotation (in the section of this chapter on Wagner's law): "Financial stringency may hamper the extension of state activities, causing their extent to be conditioned by revenue rather than the other way round...."

similar pattern is to be observed in other countries similarly affected. In Britain, the plateaus of expenditure establish themselves at successively higher levels, and the share of government expenditure in national product remains much greater after the wars than it was immediately before them.

To provide a satisfactory explanation of this time pattern of government expenditures, we must begin with some kind of concept of the nature and behavior of governments. We should then be able to interpret the relevant historical phenomena of any period in the light of this conception, and so obtain an understanding of the changing magnitude of public expenditures. It is one thing, however, to criticize a political philosophy such as that used by Wagner, and quite another to provide a coherent statement that will stand in its place. In this respect, fortunately, we can profit from the more limited nature of the task we have set ourselves; we do not need a theory of government that will describe the character of public expenditures fifty years from now, but require only a sufficient understanding of the governmental process to provide insight into the year-to-year behavior of public spending. For this more limited purpose, we believe that some fairly simple propositions, certainly not sophisticated enough to be called a philosophy, will suffice.

We start from the trite but important observation to which Wagner himself has directed attention: that government expenditure depends broadly on revenues raised by taxation. That is, decisions about such expenditure are influenced or controlled through the ballot box, or by the use of whatever other media exist for citizens to bring pressure to bear upon their government. Now, these political choices differ from choices made through markets. It is inherent in the nature of choices made through the political process that the ideas of citizens as to what is desirable public expenditure can be separated from the ideas of those same citizens as to the reasonable burden of taxation. Clearly, both the views that citizens hold and their influence on government policy will be affected by the political organization of the society concerned. But while, for example, a dictatorship and a democracy with regular free elections may differ in this respect, no government is likely to act without any consideration at all of the views of its citizens. Thus, the divergence of the "revenue" and "expenditure" ideas of citizens is of potential relevance as a means of explaining the time pattern of government expenditure growth in a large number of societies.

When societies are not being subjected to unusually violent pressures or disturbances, people's ideas about the "tolerable" burden of government taxation tend to be fairly stable. Governments may of course have plans that would increase their expenditures, and the plans may be thought desirable by many of the citizens. Nevertheless, their implementa-

tion, and thus the rate of growth of government expenditure, will depend upon the view taken by the government as to the revenues that it is (politically) able to raise as well as upon its own views as to the desirability of increasing government expenditures in any direction.[21] Consequently, government expenditure may rise in such periods, but if so it will do so at a steady and relatively unspectacular rate, curbed by such economic factors as the disincentive effects of high marginal rates of tax and also by popular notions of tolerable tax burdens and by the degree of political control exercised by the citizens over their government, but encouraged by a rising output per head.[22] Also, both citizens and government may, throughout such periods, hold divergent views about the desirable size of public expenditures and the possible level of government taxation.

This divergence can be adjusted by social disturbances that destroy established conceptions and produce a displacement effect. People will accept, in a period of crisis, tax levels and methods of raising revenue that in quieter times they would have thought intolerable, and this acceptance remains when the disturbance itself has disappeared.[23] As a result, the revenue and expenditure statistics of the government show a displacement after periods of social disturbance. Expenditures may fall when the disturbance is over, but they are less likely to return to the old level. The state may begin doing some of the things it might formerly have wanted to, but for which it had hitherto felt politically unable to raise the necessary revenues. At the same time, social disturbances may themselves impose new and continuing obligations upon a government, as the aftermath of the disturbance (for example, the provision by a government of war pensions), as the result of the government being obliged by the disturbance to assume functions that it cannot easily return to others (for example, the wartime provision by government of services formerly financed by private charity), and as a consequence of changed ideas induced or encouraged by the disturbance itself.

We do not suggest that there is some absolute sense in which social disturbances "cause" changes in the economic activities of government. This would patently be too simple a view. It should be clear from the

[21] We do not of course suggest that the idea of a "customary" concept of taxable capacity is a completely novel one. See, for example, the interesting discussion in J. C. Stamp, *Wealth and Taxable Capacity*, London, 1922, Chapter IV.

[22] A rising real GNP per head brings increasing tax yields with constant tax rates, so that if people's ideas of tolerable burdens are concerned with tax *rates* rather than total payments, this provides a reason why the peacetime plateau described by public expenditures may have an upward slope. Clearly, a progressive tax system may further encourage this possibility.

[23] The 1950 British budget, for example, involved a tax burden that would have been unthinkable to a prewar government or electorate. Yet there was no serious argument for a return to the prewar situation: the social disturbances of World War II had created a new set of norms, broadly accepted by both citizens and political parties.

discussion so far that we recognize other permanent influences that may be of importance (though these seem unlikely to operate in a constant direction over time), and also the possible importance of changing social ideas for the growth (or decline) in the functions of government. Thus, it is possible to find peacetime periods (for example, just before World War I) when the rate of growth of British government expenditures was such that if it had continued steadily until 1955 the share of government in community output would not have been markedly different from what it was in fact. But this is the world of "might have been"; we do not know what would have happened to British public expenditures had the wars not happened, nor do we know how one can usefully speculate about such a matter. We must concern ourselves with the facts. In Britain during the period under study, those facts cannot be explained without consideration of social disturbances, and there are persuasive politico-economic reasons why this should be generally so.

Interpretation of our expenditure data, then, must take both kinds of influence into account. Changes in social and political ideas and institutions, as such, may condition the evolution of the functions of government, and may also affect the nature and significance for public expenditures of such social upheavals as wars. Conversely, the displacement effect may be the origin of lasting changes in ideas and institutions; periods of war are, for example, a fruitful source both of new ideas about society and of new administrative procedures. Interpretation is consequently complex; we wish neither to argue that the displacement effect alone explains the evolution of the public sector nor to ignore its significance. Instead we attempt an interpretation of what happens in periods of displacement against a background of history that takes the other influences continuously into account. It is only in this way that we can hope to turn the Wagnerian thesis into an approach offering greater insight into the time process and socioeconomic characteristics of expenditure growth.

It must also be made clear that we do not suggest that the displacement effect must inevitably be upward, though we shall find that it has in fact always been so in Britain in our period. Other things apart, such a proposition would imply the inevitability of eventual complete state control of economic activity. This possibility might itself produce social upheavals intended to produce a reduction in the power of government and hence a downward displacement in government expenditure. All we suggest, therefore, is that in communities and over periods in which the economic activities of the state are in fact increasing in importance and in which social disturbances occur, the nature of political power will usually produce a time pattern of growth characterized by a displacement effect of the kind described.

Loosely associated with the displacement effect, but distinct from it,

is a subsidiary characteristic of government expenditure to which some indirect reference has already been made. The process of economic growth carries with it certain influences tending to change the size of the government unit upon which responsibility for public economic activities rests. This change in the division of responsibilities we call here the concentration process (see Chapter 6).

The economic factors making for change in the effective responsibility for particular public sector activities can be fairly easily stated, although their consequences may be less easy to trace. It is characteristic of economic development that it carries with it, and indeed depends upon, improvements in the ease of transport and communication, and that this is very likely to be associated also with a growth in the technically efficient size of economic and administrative units. Thus, the process of growth may generate two kinds of pressure for the movement of responsibility for public expenditures toward higher (larger) organs of government. First, the very fact of improved transport and communications, by increasing the knowledge of particular groups about the mode of life and standards of public service enjoyed elsewhere in the community, is likely to generate pressures for improved and uniform standards of public services, and these pressures may only be capable of satisfaction by greater centralization of control over the size and character of public spending. Second, the improvements in transport and communications may not only make such larger areas of control possible, but may also make them economically efficient. There can be scale economies in public as well as private economic activities, and such economies may be generated for both by the process of economic growth.

On the other hand, while economic growth may produce social pressures for uniformity of standards, there are other social pressures tending in the opposite direction. The lower levels of government (whether the creation of the central government as in Britain or units in a federal structure as in the United States and Canada) are themselves political units, with a history and a tradition. They cannot be expected to surrender their authority easily, and in many countries, both federal and unitary, the pressure to preserve local autonomy is important politically at both the central and local government levels. At the same time, the historical development of local governments usually leaves them with wide responsibilities of varying character. Changes in these different activities cannot be expected to be uniform, so that any concentration process that does occur must affect different local functions in very different fashions. It may do so in a variety of ways: by the higher levels of government taking the greater share of responsibility for the expanding types of government expenditure, by the shift of responsibility for particular services from lower to higher authorities, by lower authorities losing

effective autonomy because they become more dependent upon the higher authority as a source of revenue, and by the creation of new authorities under the broad control of central government to deal with such problems as urban conurbations or the provision of particular services such as water supply.

This concentration process can occur independently of any displacement effect, but we should expect to find some relation (though not a precise or straightforward one) between the two. In the first place, we have seen that the concentration process (or its absence) in any period must be regarded as the outcome of socioeconomic and political forces which may be pulling in opposite directions. During periods of social upheaval such as wars the political opposition to change is weakened, and the pressures for concentration can break through. At the same time, an event such as war has different impacts at the central and the subordinate levels of government. The central authority assumes responsibility for the prosecution of the war, and it is consequently at the central level that new tax revenues (which are the basis for the later permanent growth of the public sector) are concentrated. This must imply a relatively faster growth in central functions, in the absence of a deliberate decision to hand over new responsibilities for expenditures to local governments after the disturbance is over. Further, the needs of war become more important than such issues as local autonomy, and abrogations of local independence are tolerated that would have been unacceptable at other times. Once the change has been made, it is easier to make it permanent, and such a step may indeed become unavoidable.[24] Finally, the periods of disturbance may (though they need not) be characterized by a social cohesion that reinforces, among other things, the demand for uniform standards of public services. The result of this will of course depend upon the country concerned and upon its state of economic development; it must always encourage a concentration of responsibilities at higher levels, but whether the concentration will be at the center or at some intermediate level must depend upon particular conditions.

ANALYTICAL PROCEDURE

The concept of a displacement effect can be used as the basis for a general and systematic approach to the analysis and interpretation of government expenditure statistics. It provides a focus of attention that is lacking in other treatments of the problem, in that we can explain changes in the importance of government expenditure through time by examining what happens to government spending over periods of displacement. This is not to say that general or secular factors in expenditure growth

[24] In Britain, the transfer of local government responsibility for hospital services to an independent authority after World War II illustrates this point.

must be ignored; our earlier discussion was intended to demonstrate not that these factors were unimportant, but that their influence was not constant or predictable through time in a fashion that would enable them to be used as the basis for a general law of public expenditure. Indeed, it is clear that the approach now being suggested must begin with a systematic examination of the influences affecting government expenditure more or less permanently. Until we have discovered how such influences affect the expenditure pattern during our period, we cannot be sure either that a displacement effect exists independently of them or that we know which social disturbances appear to have been productive of expenditure displacements sufficiently important for detailed study.

We must begin, then, by considering government expenditure as a whole, from both a secular and a shorter-run point of view, and in relation to the behavior of those influences upon expenditure that must operate in a more or less permanent (but not constant) fashion. In the preceding section, we indicated three such influences that are always likely to be both relevant and capable of statistical interpretation: population, prices, and the level of employment.

It has already been pointed out that the secular relation between population changes and government expenditure is complex and uncertain. But we can be fairly sure that the rate of population change is unlikely to account for large short-period displacements in the general level of government spending.[25] In the case of Britain, we should not expect population movements to be responsible for the peak-and-plateau pattern of government expenditure statistics, or to provide the reason why the peaks should occur in wartime. Nevertheless, it is necessary to assess the influence of population on expenditure over our period by computing government expenditure per head. In this way, we can not only confirm the irrelevance of population as a factor in displacement, but also obtain a supplementary measure of the changing significance of government expenditure of a kind that is especially relevant to consideration of the importance of such expenditure to the individual citizen.

The relation between price changes and displacement is less easy to assess. True, we can deflate our current expenditure statistics by price indexes and so discover whether displacements occur in the "real" expenditure data so derived. But we cannot rule out the possibility that changing prices may themselves have affected the government's problems in raising revenues or deciding upon expenditures, and so have influenced expenditure statistics over time. As one example, a consequence of inflation is to increase money incomes. If a country's tax system is progres-

[25] There are exceptions—for example, when large-scale migrations and frontier adjustments, or both, result in rapid and radical population changes such as those characteristic of Western Germany since the Second World War.

sive, then even if tax rates remain unchanged during inflation, the real burden of direct taxes on individuals must increase, and this may increase the share of community product absorbed by government. The extent to which inflation in this way releases a government from the "bonds of the revenue" will depend upon the extent to which citizens think in terms of real sacrifices, tax rates, or actual money tax payments. If there is any "money illusion" in the tax attitudes (as is likely), inflation will enable the rate of increase of the share of government in total output to be faster than it could otherwise be, so making expenditure plateaus steeper. Indeed, it is not difficult to conceive of inflation being responsible for a very rapid change in the share of output going to government—that is, for a displacement effect. First, inflation provides an emergency reason for increasing tax burdens, as a means of curbing the price rise, and so may facilitate subsequent acceptance of a higher permanent level of government income and expenditure. Second, a runaway inflation, involving complete loss of confidence in the existing currency and its eventual withdrawal, clearly constitutes a break in the social pattern as distinct as that made by war. This second phenomenon has not affected Britain during our period, although we cannot leave the first entirely out of account when considering developments since 1945. But it is perhaps an indication of the utility of our approach that it would at once direct attention to the importance of a possible displacement influence of inflation in the study of, for instance, German or French government expenditures during the same period.

The influence of changes in the level of unemployment is also not obvious. At first glance, it might seem that we could treat the level of employment as being reflected in the level of prices, in which case it might not merit separate consideration. But the relation between price changes and changes in unemployment is not simple, and in any case the influence of unemployment on government expenditure is quite distinct from the influence of price changes. In contrast to the latter, the major influence of unemployment on spending is a direct one; the unemployed receive money benefits from the government, either because unemployment qualifies them for benefits or because it reduces them to poverty and so entitles them to relief, or for both these reasons. There is thus likely to be a direct relation between the volume of unemployment and the size of expenditures for these special purposes, although it may be difficult to verify the extent to which payments are made for relief of poverty rather than for unemployment *per se*. Of course, the extent to which unemployment generates public expenditure will depend upon policies that vary between countries and over time. Also, an increase in this part of expenditure does not necessarily imply a similar increase in total spending. A government may increase its expenditures, both on

the unemployed and for other purposes, as a deliberate policy for the reduction of unemployment. On the other hand, it may be more interested in avoiding an increase in the tax burden, and look for ways of cutting other spending when expenditure on unemployment increases. Both attitudes (there are of course others) have been important in Britain during our period.

As with inflation, it is also conceivable for unemployment to generate a displacement effect, if it is sufficiently calamitous to cause radical changes in accepted ideas about the role of government. The unemployment of the early 1930's in the United States may well have had such an effect. We shall have to consider whether this was so in Britain or whether the effects of unemployment on government expenditure were more temporary, disappearing when the unemployment disappeared.

When these secular influences have been studied, it will be sufficiently clear whether or not any displacement pattern in the statistics of government money expenditures can plausibly be accounted for by them, or whether there remain periods of displacement that demand explanation in other terms. If the latter is the case, we must turn for further understanding to a consideration of more transient influences and to our propositions about the political characteristics of the expenditure behavior of governments. We should expect if our approach has any validity to find that the periods in which we are now interested are periods in which the continuity of community life suffered serious disruption. Such disruptions should not be difficult to identify, and we can begin this part of our analysis by considering whether the disruption itself had any direct effect on government spending and, if so, whether that effect could have continued outside the immediate period of disturbance, so helping to explain the displacement in the expenditure plateaus.

This involves examination of the effects on British government expenditure of the two world wars, which is a less straightforward task than might at first appear. Direct expenditures on the prosecution of war can be identified within broad limits, and they are of course limited to the period of war. We may by study of these expenditures account for the wartime expenditure peaks. But we must recognize that this is not the only consequence of war for government expenditure. Wars generate commitments that continue into peace: debt commitments, war pensions, and so on. The idea that increasing government expenditure derives from increasing national debt, and hence from war, is by no means new; Wagner, for example, considered this possibility but rejected it. We must discover whether the continuing peacetime expenditures that resulted directly from the wars will entirely account for the "displacement" of postwar expenditures to plateaus higher than the prewar ones. If so, we need look no further for an explanation of the nature of the displace-

ment effect during our period. Also, it will be useful to consider the influence of peacetime defense expenditures; these are clearly not the direct consequence of war, but they are hardly a normal peacetime expenditure.

This brings us to our final possibility. Any part of the displacement effect that still remains to be explained must be the result of the influence of the social disturbance on government behavior, either in making it possible for the government to implement existing plans or in changing the views of the government and the citizens, or both, about desirable levels of public spending. Assessment of what things were important to this process must be in some part a qualitative matter and dependent upon description. But we can facilitate interpretation by analyzing government expenditure statistics by groups, and particularly by economic and functional categories. At the same time, if we are to keep the displacement effect in perspective in relation to other relevant influences, we must also form a view of the extent to which the public sector has been changing from a "participating system" to a "control system"[26] and whether there have been changes in the character of government making control of public expenditure less easy and the effects of displacement consequently more striking. We can also examine expenditures at different levels of government (using the concentration concept to interpret the statistics) and review the spending activities of important public bodies falling outside the official public sector (in the case of Britain, the nationalized industries).

[26] These terms are explained in Chapter 5.