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LONGER-RUN DETERMINANTS OF THE ECONOMIC ROLE OF THE U.S. GOVERNMENT

American Government Expenditures: A Historical Perspective

By DOUGLASS C. NORTH AND JOHN JOSEPH WALLIS*

The growing share of economic activity undertaken by government in Western economies is a fact of the twentieth century, but no consensus has emerged within economics to explain this phenomenon. The current explanations advanced by Thomas Borcherding (1977), Allan Meltzer (1978), Meltzer and Scott Richard (1981), Sam Peltzman (1980) and Terry Anderson and Peter Hill (1980) are all associated with a crude predatory theory of the state in which government is simply a gigantic transfer mechanism for redistributing wealth and income. Without in any way denying the function or expansion of government transfer programs, we wish to advance a more comprehensive explanation of the growth of government.

A model of the state which is confined to its transfer activities is surely incomplete and seriously misleading. If transfers reduce societies total income, a government that merely transfers income is inconsistent with maximizing behavior by the individuals and groups that run the state. These participants must not only be concerned with garnering wealth and income by devising a set of property rights that will guarantee their rents, but also the size and health of the whole economy. They must devise a set of rules to reduce transaction costs of the economic system in order to foster economic growth and expand the tax base and therefore income available for transfers.

These two functions are not completely compatible. The conflict between government policies to redistribute income and policies to promote economic growth is the fundamental explanations for the failure of political-economic systems to grow and is the

root cause of economic decline.¹ But our objective in this paper is the limited one of spelling out this second aspect of government and demonstrating that it accounts for a substantial share of the growth of government economic activity.

I

Our argument is straightforward. The wedding of science and technology in the late nineteenth century made possible a technology of production whose potential was only realizable with an enormous increase in the resources devoted to political and economic organization—the transactions sector of the economy. A substantial part of this increase has occurred in the market and through voluntary organization, and a substantial share has also been undertaken by government.

Government activity can be divided into two major categories. The first is the provision of government services which reduce the cost of exchange between various members of society. These “transaction services” reduce the cost of transacting, enable individuals to enter into a greater number of exchanges, and thereby encourage specialization and productivity growth. The provision of this type of service benefits all individuals, as all citizens realize larger gains from trade.

The second type of government activity is the transfer of resources from one group(s) within the society to another group(s). Ignoring utility comparison between groups, this transfer activity simply redistributes income. To the extent that real resources are used in making the transfer, or that the taxes and

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¹For an elaboration of this argument, see North (1981).

benefits associated with the transfer distort resource allocation, society is worse off. Though oversimplified, these two categories provide a framework within which government activity can be analyzed. We begin with provision of transaction services.

Although the division of government expenditures between transfer and nontransfer activities is to some degree arbitrary, Table 1 presents information on the relative importance of various components of government expenditures in the United States and fifteen other developed countries from 1953 to 1974. Two features of the table are of interest. First, despite the variability between the United States and European countries in defense expenditures and transfer payments, the relative share of *GDP* devoted to nondefense, nontransfer government services across countries is quite comparable, and the variability across countries of this portion of government expenditures is relatively low.

Second, nondefense, nontransfer expenditures grow slightly slower than transfer expenditures in this twenty-year period, but slightly faster than total government expenditures as a share of *GDP*.

The division of government services into transfer and transaction services will always pose a problem. A grant to build an airport can be viewed as a transaction cost-reducing investment or as a transfer to the owners of airlines and airline passengers. Likewise, unemployment compensation can be seen as a transfer to unemployed persons or a form of insurance. In Table 1, transfer programs are those that directly grant resources, in cash or kind, to individuals. In the United States, the largest of those programs are Social Security, Medicaid, and Medicare and include unemployment insurance, disability insurance, AFDC, and others. The nondefense, nontransfer programs include international affairs, general science, space, and

TABLE 1—GOVERNMENT EXPENDITURES/*GDP*; UNITED STATES AND FIFTEEN DEVELOPED COUNTRIES (*DCs*), 1953–74

| Expenditure Category | 1953–54 | 1958–59 | 1963–64 | 1968–69 | 1973–74 |
|----------------------------|---------|---------|---------|---------|---------|
| Total Government | | | | | |
| U.S. | 27.0 | 27.5 | 28.0 | 31.1 | 32.2 |
| Avg. of 15 <i>DCs</i> | 28.9 | 29.9 | 31.7 | 35.8 | 39.4 |
| <i>SD</i> of 15 <i>DCs</i> | 4.1 | 4.3 | 4.8 | 5.9 | 7.2 |
| <i>CV</i> of 15 <i>DCs</i> | 14.1 | 14.2 | 15.0 | 16.6 | 18.3 |
| Defense Expenses | | | | | |
| U.S. | 12.25 | 9.9 | 8.45 | 8.95 | 5.7 |
| Avg. of 15 <i>DCs</i> | 4.05 | 3.3 | 3.24 | 2.83 | 2.51 |
| <i>SD</i> of 15 <i>DCs</i> | 2.46 | 1.55 | 1.32 | 1.13 | 1.03 |
| <i>CV</i> of 15 <i>DCs</i> | 60.7 | 46.5 | 40.7 | 39.9 | 41.1 |
| Transfers ^a | | | | | |
| U.S. | 5.5 | 6.7 | 7.5 | 8.7 | 11.0 |
| Avg. of 14 <i>DCs</i> | 11.9 | 12.9 | 13.8 | 16.2 | 18.8 |
| <i>SD</i> of 14 <i>DCs</i> | 4.3 | 4.2 | 4.3 | 4.9 | 5.9 |
| <i>CV</i> of 14 <i>DCs</i> | 36.4 | 32.5 | 31.0 | 30.2 | 31.6 |
| Nontransfer, Nondefense | | | | | |
| U.S. | 9.2 | 10.9 | 12.05 | 13.4 | 15.5 |
| Avg. of 15 <i>DCs</i> | 12.64 | 13.54 | 14.7 | 16.61 | 18.37 |
| <i>SD</i> of 15 <i>DCs</i> | 2.89 | 2.32 | 2.11 | 3.27 | 3.47 |
| <i>CV</i> of 15 <i>DCs</i> | 22.9 | 18.5 | 14.4 | 19.7 | 18.9 |

Sources: See Peltzman. All sample data from National Accounts of OECD Countries, U.S. data from Economic Report of the President.

Notes: Sample countries are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Sweden, Switzerland, and the United Kingdom. “*SD* of 15 countries” is standard deviation for 15(14) country sample, “*CV*” is coefficient of variation.

^aTransfer payments were not broken down separately for Switzerland.

technology, energy, natural resources and environment, agriculture, commerce, transportation, community and regional development, education, administration of justice, general government, and interest payments. At the state and local level, the single largest item is education, followed by highway expenditures. Police and fire protection, natural resources, sewage and sanitation, housing and urban renewal, parks and recreation, financial control, interest payments, liquor stores, and utilities are the other major non-transfer items. Though the division is a rough one, it does illustrate that these expenditures were a growing share of total economic activity, even in the years when transfer payments were growing rapidly. Also interesting is their relative stability across countries.

II

For over two hundred years, economists have acknowledged the central role played by specialization and the division of labor in increasing the productive potential of an economy. Specialization enables workers to develop skills and talents whose acquisition is too costly for generalists. At the regional and national level, specialization allows geographic areas to exploit their comparative advantage in the production and/or distribution of certain goods. The reduction in transportation and information costs in the nineteenth and twentieth centuries led to a dramatic increase in the size of markets, the degree of specialization between individuals and regions, and in the number of exchanges occurring within the economy.

Increased specialization and its attendant increase in output has not, however, been an unmixed blessing. Exchange is not costless. In addition to transportation and information costs, exchange involves measurement, insurance, and enforcement costs. Measurement costs are the costs of determining the quantity, quality, and dimensions of the good or service being exchanged. Insurance costs are the costs of real resources committed as a hedge against circumstances unforeseen by either party. Enforcement costs are the costs of obtaining compliance with the terms of a contract or compensation when contracts are

unfulfilled. These costs of exchange become relatively more important as the market expands and specialization develops.

The number of transactions grows both because the number of individuals participating in market exchange expands, and because each individual becomes more specialized and relies on the market for the acquisition of a more varied consumption bundle of goods and services. Occupational specialization is paralleled by growing geographic specialization, and the personalized exchange of small numbers is replaced by impersonal exchange. There are three consequences of this specialization that increase the costs of transactions.

First, personalized exchange and repetitive dealing minimize cheating, shirking, and opportunism as compared to impersonal exchange. In the latter case, positive measurement and enforcement costs raise the rate of return on such activities. One variant of this stressed by Benjamin Klein et al. (1978) is the hold-up problem associated with the large specific investment that developed with the technology of the late nineteenth century. As a result both parties to exchange will expend more resources to contract specification and more elaborate enforcement provisions. This will be true both across markets and inside the firm, as these problems are altered but not eliminated by vertical integration.

Second, as the distance, in space or time, between the purchase, payment, and delivery of a good or service increases, the possibility that an unforeseen event will alter the circumstances under which the exchange was conceived rises. As a result, the amount of resources devoted to insurance rises. Specialization further limits the individual's ability to self-insure by producing a variety of goods. By definition, specialization reduces the diversity of an individual's output, inducing individuals to purchase more insurance against uncertainty in the market for his specialized product.

Third, as people become more specialized they become relatively more ignorant. Concentrating on the aspect of the world in which one specializes enables a person to realize his comparative advantage, but necessarily reduces his knowledge about other

aspects of the world. As a person becomes more productive in his specialized occupation, the opportunity cost of spending time acquiring information rises. At the same time there is a wider variety of goods and services to choose from (another result of specialization), increasing the benefits from obtaining information about other goods in general. Individuals are therefore willing to pay more for (reliable) information as they become more specialized.

In each of these cases specialization induces individuals to devote more resources to the business of exchange. The same forces also lead some individuals to specialize in occupations which reduce the costs of transacting, and to sell those services to others. These occupations have grown rapidly in the past century. The most obvious is the ubiquitous middleman, but there are three general forms this specialization takes: within the firm, within the market, and within the government.

The firm is a method of organizing the production and distribution of goods and services outside of the market. As Coase pointed out fifty years ago, managers within firms provide the same type of service in allocating resources as the market does between firms. The owners of firms prefer to coordinate the productive process through managers rather than the market in those activities for which the firm is a lower-cost method of coordinating exchange. Within the firm, white-collar employees are, in general, occupied with the coordination of production and distribution. The growth of white-collar employment reflects the extent to which firms have undertaken to reduce transaction costs by internalizing these coordinating tasks. In 1900, 18 percent of the non-agricultural labor force was employed in white-collar occupations. By 1970, white-collar employment had risen to 47 percent of the nonagricultural labor force (see *Historical Statistics*, p. 139).

A corresponding specialization in occupations dedicated to facilitating exchange occurred within the market. The most obvious of these are banking, accounting, law, insurance, real estate, trade, and other brokering occupations. From 1900 to 1970 the

number of persons employed in "Finance, Insurance, and Real Estate" grew from 2 percent of the nonagricultural labor force to 5.2 percent in 1970 (*Historical Statistics*, p. 137).

The government also provides a range of transaction cost-reducing services. The most important of these are basic transportation (airports, highways, rivers, and harbors), justice, police and fire, defense, postal service, licensing, quality inspection, and measurement standards. The increase in government services, measured in employment at all levels of government, rose from 7.2 percent of the nonagricultural labor force in 1900 to 17.7 percent in 1970 (*Historical Statistics*, p. 137).

These figures suggest that the public sector was not the only sector with relatively rapid growth in the last century. Government did grow more rapidly than the economy as a whole, but at about the same rate as the components of the economy concerned with the business of exchange. This is as true of government expenditures as it is of government employment, when total employment, (as opposed to nonagricultural employment) is taken as the measuring rod.

A portion of the growth of government expenditures and employment, of course, comes from transfer programs rather than the transaction services provided by the state. Disentangling transfer and transaction activities is certainly a difficult task. As we have already noted, most government programs contain elements of both types of function. There is also the conceptual problem associated with measuring transaction costs within the economy as a whole. Aside from these empirical problems there are two major theoretical questions that need be addressed. First, what are the causes of growth in government transfer programs? Second, why is the public sector chosen over the private sector to provide transaction services?

The answers to these questions are interrelated. The answer to the second question depends on the costs and benefits of using the public sector to reduce transaction costs relative to the private sector. Existing answers to the first question also focus in on the costs and benefits of using the government to transfer income (though not relative to the

private sector). In this respect the growth of transfers shares a strong common motivation with the growth of transaction services discussed here.

Growing specialization stimulated a growing in transaction sector. Growing specialization also created a host of new interest groups. This proliferation of interests, along with the widening enfranchisement throughout the late nineteenth and early twentieth centuries led to the breakdown of the Madisonian system of constraints on interest group government built into the American system.² It is possible to view this transformation in a number of ways (see the authors cited at the beginning of the article), but all involve the effects of specialization as a motivating force for the growth of transfers; the same motive force that we have proposed for the growth of transaction services, the other major government function.

The relative attractiveness of the government as a provider of transaction services on the other hand rests on more explored, if not explained, terrain. The facets of the government that give it a comparative advantage over the private sector in the provision of certain services has been thoroughly discussed. The power to coerce enables the government to play a major role in the enforcement and specification of contracts. The ability to overcome the free-rider problem allows the government to organize the production of some goods and services unprofitable in the private sector, particularly public goods. Similarly, the government can avoid some problems of adverse selection in the provision of insurance for health, old age, and unemployment.

The purpose of this paper, however, has been to ask those questions, not to answer them. We have shown that while the government grew more rapidly than the economy as a whole, it did not grow more rapidly than all of the elements within the economy. The growth of government is quite comparable to the growth of the private transaction sector, both within firms and within the market.

²See North (1978).

Moreover much of this government growth is attributable to nontransfer, nondefense activities, even in the period from 1953 to 1974 when transfers were growing rapidly.

If the argument advanced in this paper has merit, it suggests a different approach to the study of government growth. Economic historians and economists should address themselves to analyzing the basic costs of organization that accompany specialization; they should examine the links between these increasing transaction costs and the growth of transfers; and finally explain what determines whether these activities to reduce transaction costs are undertaken by firms, in the market, or by government.

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