THE STATE IN A MIXED ECONOMY

WILLIAM N. LEONARD*

I. Introduction

Debate is lively today about the size as well as the functions of government in a mixed economy. Not that these subjects have not divided opinion among scholars and the public before. In the early nineteenth century the arguments of Adam Smith, Jeremy Bentham, James Mill and other liberal economists helped to free capitalism from the heavy hand of mercantilism. Decades later expanding population and urbanization in the industrializing countries led to an increase in state services, to which were added growing demands for national defense and security from avoidable illness, old age dependence and unemployment. Economists advocated programs to meet these and other demands for public services and also justified state action to stabilize the economy and to redistribute income. These programs were championed despite the arguments of conservative economists that they made for "Big Brother" government, eroded private initiative and could lead to socialism.

Now a third level of debate has been reached with both liberal and conservative economists raising questions about the size of the state, the efficiency of its services and regulations, and the impact of the state on saving and the vitality of private enterprise. This paper will broadly examine the impact of the size and role of the state on economic growth in both mixed and centrally-planned economies, sources of governmental growth, especially in the United States, and whether the growth of the public sector is inevitable as stated in Wagner's Law.

II. Evidence from Market and Centrally-Planned Economies

One of the marvels of our time is the high level of affluence attained by the market economies of North America, Western Europe, Japan, Australia and New Zealand. This is shown on a country-by-country basis in Table I, together with the average per capita incomes of Comecon nations of Eastern Europe, and the world average.[1] The unusually high per capita incomes of the Near East are not shown, as these countries do not represent the results of decades of development.

Table I may serve as a point of departure for further examination of the role of the state in improving or retarding the growth of national product. In a recent book [7] Clark Kerr reviews the evidence for convergence (or not) of capitalist and socialist economies, com-

*Visiting Professor of Economics, University of Tampa, Tampa, FL. Presidential Address to the Eastern Economic Association, March 22, 1985.

1. Conversion of GDPs of various countries to a common currency, such as U.S. dollars, at existing exchange rates can lead to wide errors since exchange rates do not necessarily reflect the purchasing power of currencies.

Table I. Gross Domestic Product per Capita for OECD Countries, Comecon Countries and the World, 1982 (in US Dollars)

OECD Country	Per capita GDP	Comecon Country	Per capita GDP
Switzerland	$ 17,010	East Germany	$ 7,286[a]
Luxembourg	14,340	USSR	5,940[b]
Norway	14,280	Czechoslovakia	5,610[a]
Sweden	14,040	Hungary	4,450[a]
United States	13,160	Bulgaria	4,413[a]
Denmark	12,470	Poland	4,187[a]
West Germany	12,460	Yugoslavia	2,800[c]
Iceland	12,150	Romania	2,546[a]
France	11,680		
Canada	11,320		
Australia	11,140	World	$ 2,880
Netherlands	10,930		
Finland	10,870		
Belgium	10,760		
Japan	10,080		
Austria	9,880		
United Kingdom	9,660		
New Zealand	7,920		
Italy	6,840		
Spain	5,430		
Ireland	5,150		
Greece	4,290		
Portugal	2,450		
Turkey	1,370		

[a]1981. Calculated from *World Bank Atlas* and *United Nations Monthly Bulletin of Statistics*.

[b]1981. From the National Technical Information Service, *World Factbook, 1983*.

[c]Member of OECD and Comecon

Source: World Development Report 1981 (Washington, DC: World Bank, 1984).

paring them in forty-one aspects. He finds them alike in eighteen aspects, such as organization of technology, structure of the labor force, work rules, expenditures for health and education, net reproduction rates, proportion of technicians and professionals in the work force, wage differentials and welfare programs. In nine other aspects similarity between the two types of economy appears to be increasing, in such areas as the percentage of women in the labor force, the proportion of those self-employed, urbanization, and even the distribution of income. But in fourteen areas Kerr finds the two types of economic systems far apart, with no signs of convergence: one of the most pronounced is the level of income per worker, in which the market economies have a large advantage. Kerr notes: "The key differences between the two systems are—their respective degrees of reliance on the market and the plan, and their respective degrees of independence for workers".[2] Kerr argues convincingly that the evidence of convergence is slight in essential categories, especially reliance on the market by mixed economies as opposed to central planning in socialist countries.

Although Kerr finds the two types of economic systems have grown in recent decades at about the same rate—and in the 1970s the Soviet bloc with its crude oil surplus

2. Kerr adds: "Where the systems differ most is in whether they have a monopoly of power in a single party (socialist states) or a competitive party system (capitalist states), and this is an enormous difference" [7, 62-63].

Table II.   Rates of Growth of GDP and of Output per Employed Worker,
OECD and Comecon Countries, 1950–1977

Countries	Rate of GDP Growth (5 percent per annum)		Output per Employed Worker (U.S. = 100)	
	1950–1967	1970–1977	1960	1977
OECD	4	3	47	76
Comecon	4	4	27	34

Source: This table combines Tables 2.2 and 2.3 in Kerr [7]. See [7] for
Kerr's original sources.

weathered the oil shock better than did the West—he shows that the centrally planned economies have lagged badly behind the West in boosting worker productivity (Table II). How is the relatively slow increase of worker productivity in socialist countries to be explained? Kerr finds the answer in the limitations and constraints of state enterprise, a major employer in centrally planned economies.[3]

> Generally, it would seem that state enterprise is under less pressure to reduce inertia, improve management and mobilize human energy than is private enterprise, whether within socialist or capitalist systems, and is subject to more constraints [7, 50].

Additional evidence of the hindrances on enterprise imposed by central planning and state controls comes from the People's Republic of China, which has recently introduced a series of reforms designed to cut through the bureaucratic superstructure, to encourage individual incentive and to allow resource allocation to be influenced increasingly by macro-economic instruments and private markets [5].

Statistically the recent track record of centrally-planned economies is not inspiring. Their share of world output has declined from a fifth in 1970 to a seventh in 1982. Recovering from the oil crisis of the 1970s, developed market economics in 1982 accounted for two-thirds of world output, the same proportion that they held in 1970. A substantial gain has been registered by the developing market economies of the Third World, which have boosted their share of world output from 12 percent to 18 percent over this period (Table III). These trends favor an increasing role for the Invisible Hand vis-a-vis the heavy hand of state enterprise and control.

Table III.   Shares of World Gross Domestic Product/Net Material Product
Accounted for by Market Economies and Centrally Planned Economies,

Type of Economy	1970		1975		1982	
	Total	Percent	Total	Percent	Total	Percent
Market economies	2,500,400	79.7	5,051,800	82.1	9,699,200	85.7
Developed Market Economies	2,115,100	67.4	4,105,300	66.7	7,645,400	67.6
Developing Market Economies	385,300	12.3	946,500	15.4	2,053,800	18.2
Centrally-Planned Economies[a]	635,900	20.3	1,102,900	17.9	1,614,700	14.3
World	3,136,300	100.0	6,154,700	100.0	11,313,900	100.0

[a]Net Market Product adjusted to GDP by adding the value of non-material services and consumption of fixed capital.
Source: National Accounts Statistics: Analysis of Main Aggregates, 1982. New York: United Nations, 1985, Table 1.

3. The ratio of labor force in publicly owned establishments to total labor force is considerably higher in socialist than in capitalist countries, ranging from lows of nine (West Germany), ten (Japan) and fifteen (United States) to highs of thirty-seven (Bulgaria), forty-eight (Poland) and fifty-nine (USSR). Kerr [7, Table A 13].

III. Growth and Size of the Public Sector in Market Economies

Despite the generally good record of growth for the developed market economies in recent decades, there are many who regard the increasing role of government in the economy, a characteristic of development,[4] as a threat to the survival of private enterprise. Among member countries of the Organization of Economic Co-Operation and Development (OECD), a suspicion existed that the visibly enlarged role of government could have weakened the dynamism and resilience of their economies in the 1970s, and a study was undertaken by the OECD Policy Committee to see whether the expansion of government might have contributed to a decline in growth [11]. The Committee found (Figure 1) a rather strong inverse relation between current government disbursements as a percent of gross domestic product and rates of growth of OECD countries from 1960 to 1973 ($r = .704$, significant at the .01 level). But in the second period of 1974-1981, which followed the oil shocks, the relation is not significant ($r = .196$). Moreover, the OECD countries which had the largest public sectors as a percentage of GDP before 1971 generally experienced lesser rates of decline in output and employment in the second period.

One can speculate that after the first OPEC oil increase of 1973 the large public sectors of some OECD countries cushioned the economic shock, or that these countries have less energy-intensive industries, or that governments in these nations reacted quickly to expedite adjustments to the impact of rising oil prices. But these hypotheses were not tested on a macro-economic basis.

The OECD study did consider a number of possible reasons why large public sectors might have slowed growth in the first period, including these: (1) public expenditures on education, health care, and income maintenance are inefficient replacements for private efforts; (2) regulatory measures can distort investment, pricing and overall performance by raising costs, increasing uncertainty and reducing productivity; and (3) revenues required to finance public sector activity, including borrowing, can generate a range of inhibiting effects on the proper functioning of capital and labor markets. However, the findings from these investigations were inconclusive.

IV. Measuring the Growth of Government

A key economic phenomenon of the twentieth century has been the growth of government. No matter how measured—in spending, in receipts of government, in employment, or otherwise, government has grown faster than the total economy. For the United States Borcherding's figures on government spending at all levels show an increase of 5.3 percent a year between 1902 and 1970 (constant dollars), when incomes were rising 3 percent a year [2, 27]. In a recent paper Cohen and Slifman offer data from the national income and products account showing that total government outlays between the early 1950s and early 1980s rose from 26.3 percent to 34.8 percent of GNP [4]. Actual provision of goods and services had increased slowly (they were 23.2 percent of GNP in 1981-83), but transfer payments had jumped from 3.3 percent to 8.9 percent of GNP. Net interest on the public debt had doubled from 1.3 percent to 2.7 percent of GNP.

Some economists prefer not to use aggregate government spending as it combines salaries of government employes, purchases from the private sector, transfer payments,

4. "All industrial nations develop a substantial state apparatus—the state does not wither away under socialism—in fact, the role of government nearly everywhere increases with economic development." Kerr [7, 62].
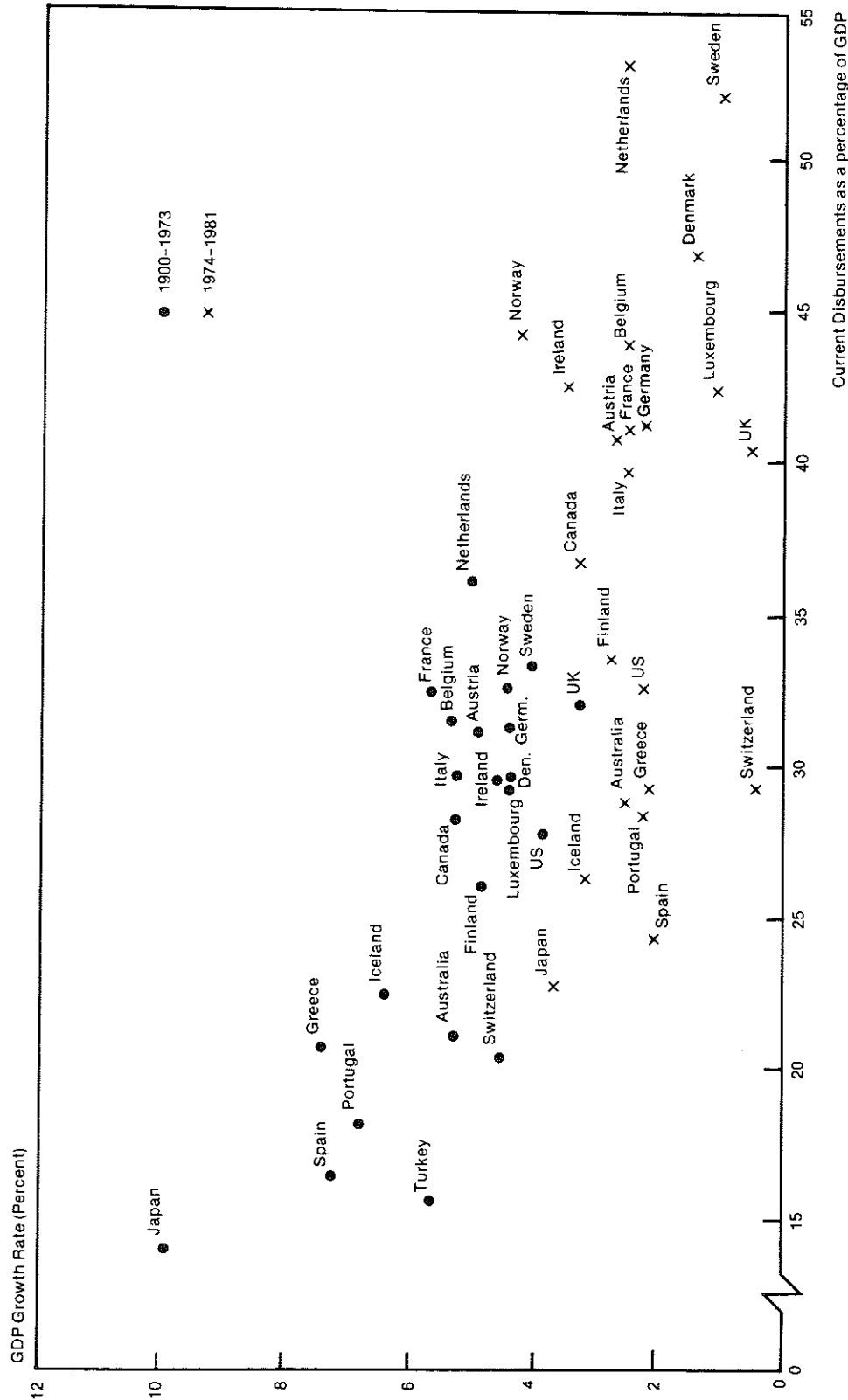
Figure 1. Economic Growth and Public Sector Size (Annual Averages)

(Scatter plot: vertical axis "GDP Growth Rate (Percent)" from 0 to 12; horizontal axis "Current Disbursements as a percentage of GDP" from 0 to 55. Legend: ● 1900–1973, × 1974–1981. Plotted countries include Japan, Spain, Greece, Portugal, Turkey, Iceland, Australia, Switzerland, Finland, Canada, Italy, Ireland, France, Belgium, Austria, Norway, Sweden, Luxembourg, Den., Germ., US, UK, Netherlands, Spain, Greece, Canada, Italy, Finland, Denmark, Austria, France, Germany, Belgium, Ireland, Norway, Netherlands, Sweden.)

federal grants to state and local governments, and net interest. It is claimed that this exaggerates the role of government, and employment represents a better measure of government size. Using labor force data, Vatter and Walker [12] found that in the half-

Table IV. Government Employment as a Percentage of the Civilian Labor Force, 1929–1979; 1980–1984 (number of employees in thousands)

Year	Civilian Labor Force	Federal Employees	State & Local Employees	Total Government Employees	Government Employees as Percent Civilian Labor Force
1929	49,180	533	2,532	3,065	6.2
1939	55,230	904	3,090	3,994	7.2
1949	61,286	1,908	3,948	5,856	9.5
1959	68,369	2,333	5,850	8,183	11.9
1969	80,734	2,758	9,437	12,195	15.1
1979	104,962	2,773	13,174	15,947	15.2
1980	106,940	2,866	13,383	16,249	15.2
1981	108,670	2,772	13,282	16,054	14.8
1982	110,204	2,739	13,099	15,838	14.4
1983	111,550	2,752	13,099	15,851	14.2
1984	113,544	2,782	13,185	15,967	14.1

Source: Economic Report of the President. Washington, D.C.: Council of Economic Advisors. February 1985, pp. 266, 275.

century between 1929 and 1979, government at all levels grew by 3.3 percent a year compared with a growth rate of 1.5 percent for the civilian labor force.

Government employees accounted for only 6.2 percent of the civilian labor force in 1929, but by 1979 that proportion had risen to 15.2 percent (Table IV). Inclusion of the military—a fluctuating number from one period to another—would augment the government proportion of employees in the total work force. If the measure of government's share is "exhaustive spending," or the payments for resources used in producing public services (thus excluding transfers), the governmental proportion of total spending becomes about 27 percent in 1979. In the United States, therefore, government's share of the economy rests somewhere between 14 percent (employment, without the military) and 35 percent (spending), with the upper percentage probably a truer measure of impact on the economy.

V. Is the Growth of Government Inevitable?

Wagner's Law

Looking at countries in Western Europe around the turn of the century, political economist Adolf Wagner found that everywhere the demand for public services appeared to be growing faster than income and postulated that government would continue to grow more rapidly than the total economy [14]. This prediction has become known as "Wagner's Law." Wagner ascribed the growth in demand for government services to rising incomes

and urbanization. There have been many studies which have supported the correctness of Wagner's observation: just recently Vatter and Walker, using data on employment, concluded that Wagner's Law held for the United States in the period 1929-79 [13]. Further, they asserted that the growth of local and state government, a large part of which consists of investment in human resources, met Kuznets' criteria for a leading sector, and to reduce the dynamism of this sector would be unwise.

Not all economists have agreed to Wagner's Law. Many years ago Colin Clark predicted that any society whose government accounted for more than 25 percent of total output would destroy itself through inflation. So far history has not confirmed this prediction. By the 1980s only Japan and Spain of OECD countries were below 25 percent of public disbursements/GDP, and several, e.g., Sweden and the Netherlands, had percentages over 50 percent (Figure 1).

A more realistic analysis of the relation of the private and public sectors was made some years ago by William Baumol, former President of this Association. In an examination of municipal budgets Baumol found that the growth of government productivity lagged considerably behind that of the private sector [1]. He hypothesized that governmental services were highly labor intensive and, over time, the costs of producing a unit of government services would increase relative to the costs of producing a unit of privately produced goods. Should this be true, and if the ratio of public sector output to private sector output was held constant, more and more of the labor force would find employment in the public sector. In time private sector employment would approach zero, and eventually the growth rate of the economy would also approach zero. Baumol suggested that under these conditions society might decide to consume a decreasing quantity of public services. Whether it did so or not depended on society's preference for public vs. private goods. Baumol did not discuss the influence in this equation of the public's desire for growth as against other values.

Sources of Growth of the Public Sector

Whether to accept Wagner's Law or not depends in part on an understanding of the causes of the growth of government services and the economic aspects of these services, such as their income elasticity and relative efficiency. A searching study of these causes was conducted by Thomas Borcherding [2,45-70]. Table V presents a summary of Borcherding's findings, including the rough weights which he assigned to the factors considered sources of growth. There seems little argument that growing population, especially in urban areas, and rising incomes have spurred much of the growth of the public sector. On these points Wagner appears to have been quite correct. Furthermore, the general income inelasticity of demand for public services—police, fire protection, health, etc.—has contributed; the elasticity is usually below 1, generally in the −.3 to −.9 range. However, price elasticities of demand for public education, where competition exists between public and private sectors, are much greater [2, 123-4]. Consequently, the third measured source—"rising costs of services, with inelastic demand"—has reduced impact because of offsetting trends. The fourth measured source—"interdependence"—refers to the fact that as urbanization increases, types of interdependencies arise that are not well handled in private markets. Examples are public health, transportation, environment, fire, sanitation and police. These have valuable externalities, but costs rising with interdependency prohibit profitable private operation and public provision replaces private, e.g. mass transit. However, such cases appear to account for only a fraction (5 percent) of public sector growth.

Table V. Sources of Governmental Growth in the United States, 1902–1970 and Percentage Contribution to Growth

Source of Governmental Growth	Percentage Contribution to Growth	
Measured sources		60
Population growth	20	
Increasing income	25	
Rising costs of services, with inelastic demand	10	
Interdependence	5	
Residual		40
Waste	12.5	
Bureaucratic maximization	10	
Fiscal illusion	?	
Special interests	?	
Total		100

Source: Thomas E. Borcherding, "The Sources of Growth of Public Expenditures, 1902–1970" [2,45-70].

Probably the most significant part of this analysis is the large residual—40 percent. Borcherding speculates that as much as one-eighth of growth may result from "waste," or various inefficiencies in government operation, which have been well-documented [10;12]. He also gives recognition to the "maximizing bureaucrat," portrayed by Niskanen as overstaffing, since salaries of public managers are correlated with size of agency [10]. These two sources of growth may account for half the residual. Harder to measure is the impact of "fiscal illusion," where poorly-informed taxpayers do not feel or do not realize the impact of a tax or expenditure. A similar vagueness exists with regard to "special interests," whose number and apparent power has grown significantly in the United States. They undoubtedly have an effect in augmenting public programs and increasing the size of government, but how much is as yet unmeasurable.

The studies do not imply that all bureaucrats are wasteful and all government agencies inefficient, or that waste and inefficiency cannot be found in the private sector. But it is generally known that in the private sector there are penalties for waste and rewards for efficiency that are lacking in government. These can, and apparently do, make a difference as seen, for example, in the slower growth of productivity of government services and in lower private costs of furnishing services where private and public providers compete. A recognition of these conditions represents a first step to their containment, to making government more cost-effective, to reducing the resources used in public services—in essence, to counter the inevitability of Wagner's Law.

Public Goods

Economists have conducted many studies of public goods, i.e., services which are consumed jointly and where there is no way to exclude nonpaying users, or free riders. Such services have traditionally included national defense, the legal and judicial systems, and the monetary system. But new evidence suggests that jointness coupled with inelastic demand for these services tends to reduce their share of government expenditure as population grows [6]. Cohen and Slifman have calculated that outlays for a number of important public goods, including spending for central executive, legislative and judicial activities of government, also for international affairs and national defense, actually declined from 13.1 percent of GNP in the early 1950s to 7.1 percent in the early 1980s [4]. This finding undermines Wagner's Law.

In my judgment, Wagner's Law does not hold for the United States and probably not for other mixed economies with democratic governments.[5] A slowing down has occurred in the increase of public employes in this country, a trend found at both the federal and at state and local levels (Table IV). Between 1979 and 1984 public sector employment rose by only 20,000 workers, while the civilian labor force added 8,582,000 workers. This indicates that the private sector was responsible for 99.8 percent of the employment gain of this period, and the public sector for only 0.02 percent. As a result, the proportion of government employes in the civilian labor force dropped from 15.2 percent to 14.1 percent in the five years since 1979.

Since public sector spending as a share of GNP rose during the 1979-84 period, it is possible that the constancy in the number of public employes derives from an improvement in productivity. A more likely explanation is the fact that most of the increase in government spending resulted from increases in transfer payments to individuals, including interest on the public debt, and from intergovernmental transfers to state and local governments [4]. The public provision of goods and services increased only slightly between 1979 and 1984.

Privatization

It is important to separate the public financing of goods and services from the provision of these services. In the mixed economy the construction of streets and highways, of schools and other public buildings, and the furnishing of other services can be handled by the more efficient private sector. Private fire companies have been found to operate at about one-half the per capita costs of public companies; in Monmouth, New Jersey, per capita costs of collecting garbage were $8.33 for cities with municipal sanitation departments and $5.84 for cities using private contractors; in hospitals, in electric utilities, and in other service areas, private producers have generally been found to operate at lower costs than public providers [12]. Contracting out the management of correction centers to a private operator has been started in some jurisdictions and appears to be spreading. There are many other instances where privatization of a public service, which government acting as funder and overseer, can reduce government costs without reducing quality of service.

In the mixed economy the productivity of the private sector can often be utilized as a yardstick of efficiency for the public sector as well as a substitute provider. For instance, the processing of claims by the federal Social Security agency can be matched against claim processing by private insurance companies to determine relative efficiency. Moreover, changes in technology in a dynamic economy may create the need for a shift from public to private operation as in the case of rapid delivery of letters and packages formerly handled entirely by the U. S. Post Office. More study and experimentation are required to determine the relative efficiencies, while maintaining quality of output, of alternative public and private provision of services.

VI. Conclusion

Contrary to Wagner's Law it appears that the public sector will not always grow faster

5. In a recent article, Erik Lundberg [8] describes the collapse of the Swedish model which for some decades had been accompanied by rising taxes and a growing public sector. Following the oil shocks of the mid-1970s, the rate of growth of the Swedish economy slowed to 1 percent per annum and deficits appeared in the balance of payments. Although Welfare State ideology remains strong, the new government is trying to bring down the public share of total expenditure from a record 70 percent. "Neo-socialists" and conservatives alike are urging that more attention be paid to private savings and to market forces.

than the total economy, that in a democratic mixed economy the relative proportions of public and private sectors will shift with economic conditions and social preferences. As suggested by the OECD experience, the choice in one period may be for less government and a more rapid rate of economic growth; at another time countries may opt for more security and welfare and a somewhat slower rate of growth. Different countries reveal different preferences for efficiency and equity, and any nation is likely to modify its growth-welfare preferences over time. After a sustained and substantial growth, a nation may deem it desirable to increase the public sector to remedy income inequities, offset negative environmental effects, or catch up on infrastructure needs. How well it makes these choices between growth and welfare, or between public and private provision of services, will depend in large measure on the supply of information and economic analysis available and the ability of citizens to make institutions work to their benefit. The proper size and scope of government suited to efficient as well as equitable operation of the total economy are subjects on which economists can, and must, shed increasing light.

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