

DEMAND FOR PUBLIC GOODS AND EXPANSION OF THE PUBLIC SECTOR

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1. Introduction : Andreades on the Relevance for Our Time of Public Finance in Ancient Greece

In as much as we are gathered here to honor the founder of public finance research in Greece, the later Professor Andreas Andreades, it seems fitting to call to mind some insights at which he arrived in the course of his extended studies of government finance, beginning with the ancient Greek city states and proceeding to modern times. The perspectives his research opened up on the evolution of fiscal institutions and practices are no less relevant now that insistent questions are raised anew about the proper scope and functions of the public sector than when he first published his major works in the decades 1910 to 1930.

The important lessons his remarkable treatise, *A History of Public Finance in Greece*, teaches are intended to alert us to errors which the ancients committed (inadvertently, or for lack of better knowledge) and the consequences of which they were fated to experience, in organizing the public sector of the city states and in using, and/or misusing, its resources. The leading examples in Andreades' treatise are Sparta and Athens as they passed their peak of power in the fifth and began their long decline through the fourth century B.C. In both cases it is shown that deficiencies in the nature of their public finance system was a significant contributing factor in their decline.

As for Sparta its rigid class structure and its very narrow tax base proved in the long run to be fatal weaknesses.

Sparta's citizen-soldiers were always a minority, about a tenth of Sparta's total population, which consisted largely of non-citizens, namely free artisans and merchants, and a much larger contingent of slaves. The ruling class of citizen-soldiers lived as a commune under austere conditions and rigid discipline. They were not permitted to engage in any work other than unpaid military and political service. In these activities they were supported by the produce of their land allotments

which were cultivated by the slaves, and as a class they were exempt from direct taxes. Property and income taxes could only be levied on merchants and artisans, and to supplement the revenues these levies yielded excises were placed on some consumer goods.

However, while Sparta's non-citizen population grew, that of its citizens declined as a proportion of the total, first in relative terms and later absolutely as well.¹ It proved increasingly burdensome for the citizen-soldiers not only to maintain their families but also to provide the weapons and gear of warfare and in addition maintain their status in the life of the citizen commune.

As the proportion of citizens to population declined progressively it became evident the former could no longer provide an adequate defense for Sparta. Two possible ways out of the difficulty both turned out not to be feasible. Privileges and obligations of citizenship might have been extended to artisans and merchants, but the citizen-soldiers refused to do this on any basis approaching equality. Mercenaries might have been hired to supplement the thinning ranks of citizen-soldiers. But the slender resources of Sparta's treasury were insufficient for maintaining the large number of mercenaries needed for an effective defense, although some but not enough mercenaries were in fact hired.

The case of Athens was very different, and it is also more instructive and familiar when viewed from a contemporary perspective. The class society of Athens was more flexible than that of Sparta. For instance, citizenship could be acquired, bought, by artisans and others, even by freed slaves, who were not members by birth of the landowning citizen-soldier class. Moreover social and political life within this ruling class was essentially democratic and the relations between this class and the non-citizens were far more amicable and less exploitative than in Sparta.

Originally the citizens of Athens had performed their military and political duties without pay. In addition they had more or less voluntarily contributed to the support of public works and institutions in proportion to their wealth. However, taxes were introduced gradually because senators (members of the Council of Five Hundred, the *Boule*) and a group of officials, archons and magistrates, became fully occupied in public duties and had to be supported by salaries. Later on many other citizens who usually participated only part-time and on a rotating basis in the activities of the assembly (the *Ecclesia*), also began to draw salaries. In due course the number who obtained at least a part of their regular income from salaries paid by the Athenian government, according to Andreades, extended to practically the entire class of citizens.

This dependence of an increasing part of the population on public expenditures grew rapidly as a result of military reverses Athens suffered in the course of the Peloponnesian Wars. In 413 B.C. the Spartans succeeded in occupying the city of Deceleia situated in the agricultural hinterland northeast of Athens. From Deceleia the Spartans made raids into the rural countryside, thus interfering with and threatening the vital supply of grain crops to Athens.

Soldiers returning from the battlefields, Attic landowners, farmers, and their slaves fleeing from Spartan raids gathered in increasing numbers in Athens, whose rulers felt impelled to provide for their sustenance by a dole from public funds. Before long this welfare system became established on a permanent basis. It came to occupy a privileged position in the Athenian budget, and to be known as the Theoricon or the Theoric Fund.

It was decided that unspent balances in the several tax funds and tribute accounts paid to the Athenian city-state were to be transferred annually into the Theoric Fund for distribution to the growing number of needy and poor in Athens.

Politicians in ancient Athens, much like our contemporary politicians, found it to be popular and to their political advantage to expand this dole system. But when wars again broke out between Athens and Sparta and also between Athens and her former allies and, consequently, mercenaries were urgently needed to supplement the city's defense by Athens' soldier-citizens, then the city's treasury was found to be almost bare and unable to meet the demands pressed on it. Thus unintentionally Athens speeded up its own decline by according a higher priority to the welfare of an increasing proportion of idle persons in its population than to the requirements for the city's defense and political survival. As Andreades expressed it :

«...the Theoricon in itself had the defect that it was distributed independently of all distinctions of need, employment, or age, in short, it brought with it the destruction of the treasury, and the degeneration of the citizens» (p. 261) and, furthermore :

«...the misfortunes of the fourth century (B.C.) took their rise from the fact that military preparations were sacrificed to the distribution of money to the citizens.» p. 259)²

These examples of the vicissitudes of public finance in Sparta and Athens bring a fundamental problem into focus. This is a quest that still has not found a satisfactory answer despite the repeated attention it has received and the strain it has placed on man's intellectual resources over the centuries which separate us from the ancient Greek city states. That is the problem of the proper scope and functions of the public or governmental sector in a national economy.

2. Scope and Functions of the Public Sector and Provision of Pure and Impure Public Goods

In a socialist system where private property is restricted to consumer goods (usually exclusive of housing) and the public sector comprises nearly all non-human economic resources, the public sector problem may seem to have been solved. Its resolution is evidently embodied in the allocation of resources which the planning authorities have imposed on that economy. But this is actually a super-

ficial view of the matter, for also in a socialist economy the equivalent of a public versus private sector problem emerges. One of the most important decisions the planning authorities have to make relates to how much scope is to be left for consumers' choice. That decision involves a determination of what proportion of the economy's output is to be supplied for sale, i.e., via the market, to the citizens as distinct from the other proportion comprising mainly capital goods which is scheduled to be allocated to industrial and other users by means other than by the market mechanism.

Under decentralized economic planning in the so-called «market-socialist» or «participating» economies, where not only most consumer goods but also many kinds of capital goods are produced for sale in competitive markets, there, too, a problem arises which is similar in principle to that of the scope and functions of the public sector in private enterprise economies.³

In the older public finance literature this problem was often approached by listing first a set of functions or services which the government needs must perform for lack of any alternative source of supply (for instance, provision for national defense, law enforcement). Secondly, other so-called «discretionary» functions were enumerated which, it was generally agreed, the government should perform because private provision was considered to be inadequate for the growing demand (construction of roads and bridges, development of a system of public schools, etc.). Thus, before listing some twelve categories of appropriate expenditure objects of «modern public authorities,» Hugh Dalton prefaced his enumeration by the statement :

«A broad distinction may be drawn between public expenditures, on the one hand, to preserve the social life of the community against violent attack, whether internal or external, and, on the other, to improve the quality of that social life.»⁴

It might seem that greatly increasing amounts and varieties of public expenditures could be justified on the basis that they would «improve the quality of social life.» It was probably with that motivation in mind that Dalton reminded his readers of Adolph Wagner's «law of increasing State activities,» which he referred to as an inference that «is as nearly universally true in modern times as any inductive generalization... can hope to be.»⁵

The current fashion is to approach the public sector problem in a more analytic and flexible manner by way of a two dimensional classification of, on the one hand, goods and services, and, on the other, of the number of individuals who may enjoy them simultaneously.⁶ At one extreme of the spectrum of the commodity classification there are the pure public goods. These are characterized by indivisibility in supply and by the impossibility, or for cost reasons the inability, of excluding any one or all the members of the community from enjoying or consuming the particular public good or service at the same time. The services of a city's

sanitation system is a good example. All the inhabitants of the city simultaneously and in about equal measure enjoy and benefit from sanitation services. A's enjoyment of these services does not diminish the supply of them that is available to B. Moreover there would not be any practical way for A to exclude B from simultaneously benefiting from these services. Consequently pure public goods, owing to their nonrival character in consumption, are usually consumed simultaneously by a large number of persons, by most or all the members of the community. Purely private goods at the other end of the commodity spectrum, are enjoyed or consumed exclusively by only one individual at any given time. The Sox I buy for my own use cannot also be worn by one of my friends, surely not at the same time as I wear them, and not at any other time unless I voluntarily give or lend them to someone else.

In between these two extremes are found numerous types of goods and services which are «impure» public and/or private goods. A new road benefits the people generally in the region it traverses, but it benefits adjacent property owners more than others. Consequently while the road is essentially a public good which might justifiably be financed from general revenues, a portion of its cost might equitably be borne by a special levy on the differentially benefited adjacent property owners. On the other hand, a person who pays a physician for an inoculation also benefits others in the community with whom he comes in contact. So while the inoculation is essentially a private good it confers external benefits also on others who, if it were practical, might be taxed or charged for a part of the cost of the individual's inoculation.

As a general principle pure public goods must be supplied by the public sector. Because such goods benefit all members of the community, the individual, as one person among a large number, need not reveal his preferences for the services they provide. He will rather be inclined to avoid or evade an implied obligation to contribute his «fair share» toward the cost of providing for pure public goods. It is their non-exclusion feature in consumption which thus gives rise to this «free rider» problem. It is for that reason these costs must as a rule be met by taxes assessed against the benefited public according to some criterion relating to an equitable distribution of the corresponding tax burden.

By the same token pure private goods are in the main, and presumably should continue to be, supplied by the private sector of the economy. The individuals who demand them (and who are the ones who will exclusively enjoy the utilities these goods provide) do, and ought evidently to continue to, acquire them at prices determined by the market mechanism.

In principle neither pure public nor pure private goods pose any problems about who should supply them and how and by whom their costs of production are to be met. The problems that arise in this regard relate to that indefinitely large «in between» category of goods and services which separates the pure private from the pure public goods. How large that category is and what proportion of our na-

tional product belongs to it is not even known, presumably because no distinctive lines of demarcation have been defined and, consequently, no attempts to estimate it have thus far been made.

But, again in principle, to the extent that these «impure» public and private goods confer separable benefits to individuals, they should evidently be paid for in the same way as are pure private goods. To the extent that they confer external, and nonexcludable general benefits and thus partake of the nature of public goods, a corresponding part of their cost of production should or might be met from taxation.

For instance annual physical examinations by persons of all ages are an «impure» private service with external benefits supplied in the private sector at relatively high costs or prices by the medical profession to individuals. The external benefits such examinations confer consist in the early discovery, cure, or arrest of degenerative diseases (diabetes, glaucoma), and in the timely discovery of contagious diseases and potential epidemics. These diagnoses afford opportunities which might otherwise be missed for practice of preventive medicine and for application of public health measures. At relatively high fees or charges for such examinations, millions of persons in the lowest quartile of the income distribution rarely undergo and purchase such examinations on an annual basis. Consequently one can regard this «impure» private service as undersupplied to the public at prices which take no account of its external benefits. It is for that reason, among others, that, in countries with national health insurance programs, a large part of the cost of annual physical examinations is met by a subsidy from tax revenues. This reduces the price of such examinations to individuals and consequently increases both the effective demand and supply of this service in view of its considerable external benefits.

On the other hand to the extent that, besides conferring separable benefits to individual consumers, many private goods also generate irreducible external costs (pollution, etc.), victimized individuals, industries, and communities, need to be compensated for the damage and social costs inflicted by production of private goods that generate external diseconomies which are not accounted for in their prices. Ideally, the compensation to parties injured by external diseconomies should be paid from taxes placed on the producers of the offending private goods in question.

The difficulties of obtaining reliable or usable measurements of the private as distinct from the public benefits generated by this «in between» category of goods and services are enormous, and so are the additional problems which arise about a corresponding division of their costs of production as between private and public sources of funds.

3. Public Sector Expansion for Policy Goals Viewed as Superpublic Goods

In this sphere there are as yet no unambiguous and unique solutions available. Because of that there is room for alternative feasible approaches and, most likely, for compromise between and combinations of some of them. In line with the public-and-private goods taxonomic approach adopted here, which reflects the view that the opportunities for exercise of individual economic choice are to be maximized, each of the following policy goals may be regarded as a composite super-public good :

Policies for : (1) economic stabilization, (2) promotion of stable economic growth, (3) achievement of a more equitable distribution of income, and within the framework afforded by these overriding aims, (4) efficient allocation and utilization (in response to aggregate articulation of consumers' choice) of the nation's economic resources.

Especially the first three of these aims, to which the fourth must adapt, are to be viewed as super-public goods because there is no alternative to the government's formulating and initiating stabilization, growth, and distribution policies in the hope of eliciting appropriate responses from the multitude of economic agents, the millions of households and firms. It is also true that owing to the interdependence that prevails between all elements of an economic system, these policies would require coordination and simultaneous application as is visualized in models of general equilibrium. However, conceptually and pedagogically there is something to be said for viewing them separately and considering them in the order stated here, when a model of public finance is to be developed.⁷ But such a task cannot be undertaken here.

In pursuit of these multiple goals the public sector will be providing a mixture of pure along with many impure public goods. For these purposes the government uses a significant proportion of the economy's resources (in the U.S. in recent years resources sufficient to generate about one third of the nation's GNP). Most of these resources (the exceptions are the public domain and government enterprises) are acquired directly or indirectly from the private sector by spending tax revenues. For simplicity, at this point we ignore deficit finance and expenditure of the proceeds of increments to the public debt.

Most of the services and goods supplied by the public sector may be subject to greater than unitary income elasticity of demand. If this be so, then, indirectly at any rate, this will provide a major tax base (for the personal and corporate income taxes) from which a large portion (nearly half) the revenues required for the cost of public sector activities is derived.

The reason for this then must be that a sufficiently large number, a majority, of persons prefer to be taxed even at progressive rates on income for the support of certain public goods and services which have a high income elasticity of demand rather than do without them. The remainder of needed revenue is raised chiefly

by indirect taxes on goods and services with price-inelastic demand and on prestige goods.

Decisions on budgets for the different levels of government which comprise the public sector are political in nature, based on majority votes by representatives elected by the citizens. Individual citizens, consequently, have only an indirect voice in these matters. Since budget decisions are rarely if ever unanimously supported by the members of a legislative body, they inevitably frustrate the preferences of a minority in the legislature and similarly disappoint like-minded persons among their constituents. The representative nature of budget deliberations is likely to be improved as citizens organize in various groups to present their views at budget hearings and when both the agenda and the voting pattern applied in budget sessions are reformed to take account of relative intensity of legislators' preferences with respect to a spectrum or succession of objectives and issues.⁸

Alternatively, as Dorfman and Steiner show, the budget with its provision of public goods and its distribution of taxes to cover their costs may be viewed as supported by a very broad consensus. The underlying idea is that most individuals do not live in social and political isolation but join others with whom they share some interests, views, and values in various organizations and groups. The government in turn is regarded as a coalition of the overwhelming majority of organizations among the citizens (exception being made for a small minority of dissident, potentially revolutionary groups). What holds the coalition together is that the government's budget becomes so formed that each group has a non-zero voters' surplus. This will consist of what each organization regards as benefits accruing to it from the public goods provided in the budget in excess of the contribution toward covering their cost which is required of the group. Budgets set up in this manner will not be rejected as long as each group has a voters' surplus. At the same time many, perhaps most, groups in the coalition may be less than enthusiastic about the budget as a whole. For it must then contain many different features, some of which will be of no, and others of negative, interest to each group in the coalition taken by itself.⁹

Besides the art and difficulty of devising a budget which gives several groups, who are likely to be opposed to one another on some issues, a feeling of having a voters' surplus in it, one wonders about individuals who have become members of several groups some of which have opposed interests provided for in the budget.

Consequently it is clear that the correspondence between individuals' preferences and the tax prices they pay for public goods can never be as close and direct as that between their marginal evaluations and the prices of private goods.

Moreover, as Steiner has emphasized, the year to year budget decisions are essentially marginal public expenditure choices, for :

«There seems to be little dissent from the proposition that defense needs appear to be determined within narrow limits without regard to the opportunity costs of other goods foregone. If interest on the

national debt, space expenditures, veterans programs, and international affairs, each of which seems to enjoy an important degree of insulation from other programs, are excluded, that portion of the budget which is subject to interprogram marginal choices is less than one third of all federal expenditures.»¹⁰

Much the same can be said for many state and local government budgets where programs for education, construction of highways, street improvements, police and fire departments, and welfare payments of «aid to dependent children,» etc. all of which items loom large, enjoy a high degree of insulation from other programs.

In peacetime this reduces the flexibility of budgets considerably and makes them less responsive to changes in citizens' demand for public goods. Flexibility will by and large be limited to certain income transfer and taxation measures. A considerable amount of this limited flexibility is attributable to the action of «built-in stabilizers» such as countercyclical variations in unemployment benefits, relief programs and agricultural price supports. At the same time corporate and personal income tax receipts reinforce the actions of the former by cyclical variation. Moreover these measures have recently been supplemented by countercyclical variation in income tax rates, investment tax credits and certain industrial subsidies and public works programs.

All of these measures go to implement economic stabilization policies, which in addition require that the direction and impact of monetary policy measures be coordinated with the fiscal policy measures just mentioned.¹¹

The substantial expansion observed in the public sector not only in the United States (from about 19 % of GNP in 1939 to 32 % in 1974), but also in western Europe is in fact to a considerable extent the result of the stabilization policies which have been pursued, the share of which in public sector expenditures in the United States has risen from about 6 % of GNP in 1939 to 15 % in 1974.¹² Moreover this growth has not yet run its course, as is evident from ongoing attempts both here and abroad to cope with the combination of high rates of unemployment and inflation by fiscal and monetary policy measures.

The postwar record of stabilization policies unfortunately is a mixed one of failure and partial successes. This is probably one reason among several why relatively little headway, less than might reasonably have been expected, has been made on the problem of achieving a more equitable distribution of income. As Martin Schnitzer points out :

«Studies indicate that since World War II the United States has made almost no progress toward closing the considerable income gap between the nation's highest and lowest paid workers. To the contrary, the share of wages and salary income going to people who are already well paid is

gradually increasing, while the share paid to low ranking workers is falling.» (p. 23).

«There has been stability in the distribution of income over the twenty-four year period 1947-1971, which is remarkable, in view of the great changes that have taken place in the American economy.» (p. 39)¹³

This matter, which may seem surprising, requires at a minimum the brief attention it is given in the following section.

4. The Public Sector and Income Distribution

The very concept of an equitable distribution of income defies definition in terms which would prove acceptable to the great majority of the people.

As Schnitzer points out :

«... there are no accepted ethical standards for determining the degree to which contributions to output should be rewarded, nor are there any acceptable economic standards for determining how much effort any individual is making. The end result is that the Western market-oriented countries have accepted the idea that income distribution is much too important to be left to market determined forces. There is acceptance of the idea that income ought to be redistributed in favor of those with lower incomes at the expense of those with higher incomes.»¹⁴

The Musgraves, after considering alternative approaches to distributive justice as applied to distribution of income and wealth, concluded that a combination of equity and endowment considerations «most nearly approximates emerging United States mores regarding the distribution problem,» namely a combination of the following type :

«... it may be held that equity calls for assuring the avoidance of the suffering of poverty, but that an endowment based approach-let individuals keep what they earn in the market- may be applied once this objective is met.»¹⁵

One or another of several currently proposed «negative income tax» proposals might serve the first part of the combination of criteria cited above which are implicitly urged by the Musgraves for achieving an optimal income distribution. But, as Alan Blinder points out :

«...the distribution of income gets successively more unequal as the generosity of the negative tax plan increases. (And) the difference between the post-transfer distribution and the distribution in absence of transfers is quite small. The simulation results are much more sanguine on the possibility of redistribution through wage subsidies, indicating that quite substantial reductions in inequality are obtainable at reasonable budgetary cost. However, these calculations are too optimistic, since they ignore the demand side of the low-wage labor markets.»¹⁶

Evidently there are no simple and easy answers-such as a negative income tax or wage subsidies-to the problem of placing a floor under incomes at a level intended to guarantee a «decency» consumption standard for all families and individuals. But this does not mean that a considerable redistribution in favor of the bottom quintile of families in this income pyramid cannot be achieved. The evidence brought out in Schnitzer's study indicates that much can be accomplished by closing yawning tax loopholes and by redirecting a large proportion of transfers from families in upper-middle and upper income brackets to the lower ones.

When income inequality is viewed as a long run phenomenon - the period 1929 to 1971 - income inequality has been reduced, for in 1929 the top 20 percent of all families and individuals received more than half - 59 percent - of total income. (By 1971, the top quintile received less, 41.6 percent of total income, p. 40.) The Depression altered the distribution of income to some extent. However, a levelling off point was reached by 1947. In the shorter period from 1947 to 1971 the top and bottom fifths of families and individuals have received about the same percentage of income. (The bottom quintile received 5.0 percent of income in 1947 and 5.5 percent in 1971; the top quintile received 43.0 percent of total income in 1947 and 41.6 percent in 1971, p. 40.)... The personal income tax has had little impact on altering the distribution of income. The effective rate of progression has been reduced through a series of loopholes... (which) have worked to the advantage of upper-income families. (p. 57).

An increase in government transfer payments from \$10 billion in 1947 to \$92 billion in 1971 also appears to have had little effect in changing the income distribution pattern during this period. (p. 39).

The distribution pattern of all social welfare payments, exclusive of public assistance and welfare payments, showed that a sizeable share accrues to families in the upper income brackets. For example, families with incomes of \$15,000 or more (in 1971) received almost one third of the total of unemployment and workmen's compensation, government pensions, and veterans' payments, and also almost one third of the

private pensions. It would appear that low-income groups in general are not particularly helped by the existing system of social welfare. (p. 54)¹⁷

For purposes of comparison and contrast we may once more use some of Schnitzer's data, this time for another highly industrialized democratic country with a market-oriented private enterprise economy, Sweden, which has achieved a more egalitarian distribution of income :

In summary it can be said that the distribution of transfer payments in Sweden is heavily skewed in favor of households and individuals in the lower income brackets, hence the major effect of the system of transfers is to reduce inequality in the money distribution of income. In particular, it is basic pensions, including old age pensions, widows' benefits, and housing allowances that contribute the most to a more uniform distribution of income. It is estimated that the basic pensions increase the uniformity of total income distribution by 12 percent, with old age pensions accounting for around 70 percent of the greater uniformity in distribution. (p. 91)

The impact of local and national income taxes and old age pensions benefits on the distribution of income can be measured. For example, the average income of the highest quintile...of all taxpayers before taxes was 68,669 kronor (in 1971) and the average income of the lowest one-fifth of all taxpayers before taxes was 8,041 kronor - a ratio of 8.5 to 1.0...After income taxes and social security contributions had been taken into account, the highest and lowest quintile values were 25,629 and 8,935 kronor- a ratio of 2.9 to 1.0. (p. 85)¹⁸

5. Concluding Comment

In looking to the future, whatever resolution the income distribution problem, which has suffered setbacks by inflation ever since the close of the 1960s, may receive by reform of both the system of taxation and that of transfers, it seems certain that the public sector will continue to expand. This will happen, as in the past, in response to urgent and rapidly rising demands for public goods. It is difficult to see how far its expansion will carry, or where it may stop short of engulfing the entire economy. However, this seems unlikely, for as we have observed earlier, a substantial private sector also exists and thrives in the so-called market-socialist economies.

The fields in which further expansion of public activities would appear to be both inevitable and imminent are those of environmental protection and restoration, provision of alternate sources of energy first to replace petroleum and eventually coal as well.

At the same time the problems of increasing the supply and reducing the cost to families and individuals and improving the geographic distribution of medical and health services are likely to call for new and additional measures of collective action.

Other problems may readily be added to this list, the solutions for which may seem to be beyond the capacity of firms and individuals in the private sector. But there is little point in extending this catalogue. Solutions for some vexatious difficulties, of which we are only now becoming aware, are likely to call for development of different forms of organization than we now have. They may also require broader motivation for action than profit and individual utility maximization. If so, little or nothing may be gained in seeking their solution by the simple expedient of turning them over from firms and private organizations, which may be attempting and working on their resolution, to the bureaucracy of civil servants and elected politicians who administer the public sector.

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