

- **Unproductive Public Expenditures - A Pragmatic Approach To Policy Analysis**

Unproductive Expenditures and Their Economic Implications

This section presents the background for the present discussion and an analytical framework for defining public expenditure productivity and unproductive expenditures. It also discusses conceptual and practical difficulties involved in defining and assessing public expenditure productivity and in identifying unproductive programs.¹

Background

In all economies, an efficient and sustainable reduction in the fiscal deficit requires a sound mix of revenue and expenditure policies. A government facing the need to reduce speedily the fiscal deficit may at times find it difficult or impossible to raise the level of revenue in the short run. Increasing the productivity of public programs can provide a viable option that will release resources to reduce the deficit or to expand other critical public programs. Moreover, the government may want to reduce the size of the public sector and the level of public expenditure over time because the public sector is engaged in activities that can be carried out more efficiently by the private sector. Even without a major fiscal imbalance or a large public sector, some categories of public expenditure may be so inefficient that improving efficiency could release resources to expand other critical public programs or to reduce the deficit.

Tax reform, even if it is efficient, will have diminished benefits or can even be counterproductive if it is not accompanied by an equally efficient reform of public expenditures, especially if any additional revenue goes to inefficient public expenditure programs.

In many industrial and transition economies, the role of the public sector is extensive, and reducing its role will lower public expenditure and help reduce the fiscal deficit. Particularly relevant in this context are expenditures on social security, producer subsidies, and defense.

For a variety of external and domestic reasons, many developing and transition economies have experienced a rapid decline in revenue, which, in turn, has created a need to reduce their fiscal deficits. Such reductions, of course, can be achieved by either raising revenues, reducing expenditures, or a combination of the two.

Experience suggests that large increases in the ratio of tax revenue to GDP may not be feasible in the short run, especially when they must satisfy efficiency and equity criteria. The exceptions have been those countries where a drastic acceleration of the inflation rate or an excessive overvaluation of the exchange rate has sharply reduced tax revenue. In these cases (Argentina, Bolivia, Peru, and Uganda, for example), reducing the rate of inflation or adjusting the exchange rate can lead, and has led, to large increases in tax revenue in relation to GDP.

The fact that tax reform alone is unlikely to bring about the needed short-run adjustment in the fiscal accounts often shifts the focus to the expenditure side of the budget. Attempts to reduce public spending have been common. Unfortunately, experience has shown that expenditure cuts have often followed criteria that from an efficiency or equity point of view have left much to be desired. For example, some countries carried out across-the-board reductions in spending without regard to the relative importance, at the margin, of various expenditures. Others chose the politically easier path of reducing expenditures on operations and maintenance or on capital spending, or the technically simple step of reducing real wages by keeping nominal wages unchanged when it was politically feasible.

Often these adjustments were neither desirable nor sustainable. A cut in investment spending on productive new capital projects or a reduction in outlays for maintaining the existing capital stock may reduce growth prospects for the economy. Sharp cuts in real wages in the public sector can lower the productivity of the public sector work force and are unlikely to be sustainable. Well-designed policies of public expenditure reduction have proven difficult to plan and execute, as they require difficult technical work, political compromises, and the adoption of complementary measures.

Regardless of these difficulties, however, governments inevitably have to--and do--plan and execute expenditure reductions. The goal should be to achieve fiscal adjustment in the most efficient and sustainable way possible, with due consideration given to maintaining essential public services, protecting growth prospects, and achieving an equitable distribution of income.

Public Expenditure Productivity and Unproductive Expenditures

Analytical framework

The notion of public expenditure productivity is predicated on the interpretation of public sector activities as production processes. The public sector employs human and other resources and accumulates capital stock to produce public goods, such as "economic stabilization," "judicial services," "national defense," "protection of the poor," and, at times, even private goods.

The distinction between public production and public provision is important. The government may *provide* a public good, but may let the private sector *produce* it. For example, the government may decide to contract out the running of prisons to the private sector, or it may buy military equipment from the private sector.

Whether the public sector is a producer in a narrow sense or a provider, it uses resources for production or procurement and for the administration of benefits. The public sector should use these resources efficiently to fulfill its objectives. Analogous to labor or capital productivity, public expenditure productivity may be defined by comparing outputs produced, or objectives achieved, with given expenditures. The following two conditions are essential for public expenditure programs to be efficient or "productive."

LOWEST POSSIBLE COST. Public sector operations must be cost-effective. Individual public expenditure programs or projects should be designed and implemented to provide given levels of outputs or achieve specific objectives at minimum cost. For this condition to be satisfied, the public sector must use human and other resources fully and effectively; that is, it must not waste any resources. Moreover, given their prices, inputs should be mixed optimally. The conditions for cost-effectiveness may differ, however, between public production in a narrow sense and public provision. In the latter case, if public provision is based on purchases of goods produced by private producers, the government may not have to be excessively concerned about the efficiency of production if the private sector operates competitively, although it has to be concerned about the efficiency of procurement.

APPROPRIATE MIX OF OUTPUTS AND SUSTAINABLE LEVELS OF AGGREGATE EXPENDITURE. For public expenditures to be productive in the aggregate, the mix of public sector outputs should be optimal.² The government should not produce too much of one good and too little of another. If the benefits of public sector outputs could be quantitatively measured and compared with one another, an appropriate mix of outputs for a given level of aggregate public expenditure would be achieved by equalizing at the margin the benefits of each program. This would yield the highest aggregate benefit.

The level of aggregate public expenditure should be consistent with a sustainable macroeconomic framework. In the simple case of one public good, the optimum provision of that good is achieved when the marginal social benefit derived from the good is equal to the marginal social cost of providing it. If there is more than one good, the marginal social benefit derived from total expenditure should equal the marginal social cost of such expenditure. As defined by Samuelson (1955), the social benefit of a public good is the sum of the benefits derived by the members of society, as measured by each individual's willingness to pay. These benefits include not only those of specific public services provided by these individual programs but also the overall policy objectives--for example, macroeconomic adjustment and poverty reduction--at which the mix of public expenditure programs are aimed. The social cost of providing the public good should include not only

the cost of producing the good but also the administrative cost of its provision and any costs arising from financing the expenditure, including taxation and borrowing.

Unproductive expenditures and their underlying factors

Public expenditure productivity provides a basis for conceptualizing "unproductive" expenditures. For a single program, unproductive expenditure may be defined as the difference between the actual public spending on the program and the reduced spending that would yield the same social benefit with maximum cost-effectiveness. Moreover, if a change in the mix of cost-effective public sector programs were to reduce aggregate public expenditure without reducing the aggregate benefit, the difference between the two aggregate expenditure levels that yields the same aggregate benefit could also be considered unproductive expenditure.

It should be noted that in this sense unproductive expenditures are not necessarily measurable. As discussed below, there are many difficulties involved in assessing and measuring unproductive expenditures. In many cases, it is not possible to distinguish between "productive programs" and "unproductive programs"; public expenditure programs have varying degrees of productivity. Alternative options for mixing public expenditure programs imply different degrees of aggregate expenditure productivity. Moreover, even if all programs were cost-effective and appropriately mixed, the aggregate expenditure level might not be sustainable. In this case, the productivity of public expenditure programs cannot be determined without considering the adverse macroeconomic implications (for example, higher domestic inflation or a larger external debt burden) of aggregate expenditure.

Nevertheless, unproductive expenditures, as defined in this pamphlet, can provide a useful basis for assessing and improving policies. The definition developed here provides a basis for discussing reform options for public sector programs. For example, a generalized food subsidy established to protect the poor would be made more productive by reforming it into a targeted one. Changing the mix of health programs from curative to preventive might increase expenditure productivity by improving health status without increasing expenditures. Finally, cost-effective expenditure programs might have to be eliminated because the benefits that they generate are lower than their costs, including the negative macroeconomic implications of these outlays.

Unproductive expenditures arise because of many factors, including uncertainties, the lack of a well-trained civil service, inadequate checks and balances in the political and budgetary process, and corruption. Government expenditures often grow faster than revenues because of asymmetries in the political costs and benefits associated with taxing and spending.³

Generalized subsidies that benefit a broad populace, including the middle class, illustrate the political factors that underlie the growth of unproductive expenditures. These subsidies, while enhancing political support and election prospects, are an inefficient means of increasing the consumption standards of the poor. Replacing these subsidies with benefits targeted to the poor will improve the efficiency of expenditures, provided that these benefits do not have a strong adverse effect on work incentives by increasing the implicit marginal tax rates for low-income workers. Expenditures on "white elephant" projects (prestigious projects that do not serve useful economic or social objectives), subsidies through marketing boards or investment incentives, and transfers to loss-making public enterprises often reward important political groups or benefit particular regions at the expense of the larger populace (Krueger (1990)). Lobbying to obtain these benefits increases further the costs of such public expenditures (Becker (1983)).

The problems involved in identifying the inflation tax or debt-service burden associated with certain government expenditures make it more difficult for voters to hold policymakers responsible for their decisions. Long-term government borrowing shifts the burden of making politically unpopular decisions to increase taxes to future generations of policymakers. At the same time, there is a "property rights" problem associated with prudent and purely productivity-oriented expenditure policies: the benefits of such policies may only accrue in the long run, and future generations of policymakers will enjoy the political benefits (Lee (1987)).

Conceptual and practical difficulties

While public expenditure productivity is an apparently straightforward concept, there are many difficulties involved in measuring public expenditure productivity and unproductive expenditures.

It is difficult to measure or value public sector outputs, particularly for public goods, such as national security or criminal justice. Many public sector outputs are neither marketable nor offered competitively; they are neither tangible nor divisible. It is often not easy even to value the inputs used. The public sector is not profit oriented; it often employs scarce productive factors without offering competitive prices that reflect opportunity costs (as, for example, with administered producer prices and minimal wages for military draftees), and it finances its operations largely through taxation--a nonmarket instrument.

Assessment is further complicated when programs serve more than one objective (for example, a highway serving both economic and defense objectives) or have economic implications not directly related to their primary objectives. Public programs can have important positive externalities on private sector investment, employment, and production. As a result, deciding on the mix of public sector outputs is always difficult and may require value judgments. For example, choosing between a military and a development program requires a policymaker to weigh the relative merits of national security and economic development. Assessment may also

be complicated because the demand for public services and various risks are not correctly anticipated. Underutilized public facilities can emerge. Some public programs, such as government loan guarantees, may have only small initial budgetary costs but incur large contingent liabilities.

Moreover, available public expenditure data often do not adequately cover public sector institutions, such as local governments and public enterprises. For many countries, disaggregated expenditure data (in particular, by functional classification) are either unavailable or not compiled on a timely basis.⁴ There are difficulties and ambiguities involved in classifying expenditures functionally. Lack of timely and complete data hampers efforts to monitor and improve the efficiency of specific programs. In addition, inefficient programs often emerge ex post as a result of inefficient implementation or the failure of complementary programs.

Implications of Unproductive Expenditures

The economic costs of unproductive public expenditures can be far-reaching. Inefficient public programs imply that the overall level of expenditure is higher than is necessary to fulfill the objectives of these programs; this, in turn, implies a larger deficit or higher taxation than when these programs are efficient. Reducing expenditures without improving expenditure productivity implies scaling down public sector output. Maintaining high taxation limits the resources available for the private sector. The result can be smaller public or private investment, lower economic growth, fewer resources available for use elsewhere, and a greater debt burden in the future.⁵ By reducing or eliminating unproductive expenditures, a country can either reduce the fiscal deficit without reducing the provision of essential public programs, reduce taxes, or expand the provision of other essential public programs.

Certain public programs have far greater costs than the budgetary resources that they command. Consumer subsidies reduce the efficiency of resource use by encouraging wasteful consumption of goods that are subsidized or by discouraging their domestic production (if financed by taxes on producers) and thus create an excessive import demand, for which foreign exchange must be allocated.

Some expenditures can have important external effects on resource allocation even beyond their national boundaries. Subsidization of exports lowers their world market price and thereby reduces foreign exchange earnings and welfare in other exporting countries.⁶ An increase in producer subsidies for tradable goods in a country may trigger retaliatory increases in similar subsidies or the erection of trade barriers in competitor countries. An increase in military expenditures in a country may cause military buildups in rival countries. Therefore, reductions in these expenditures in a country can have virtuous effects on global resource allocation.⁷

Reducing unproductive public expenditures worldwide would yield a large increase in available resources. Based on the assumption that aggregate world GDP was some \$30 trillion as of the early 1990s, with public expenditures accounting for about 30 percent of GDP, the immediate and direct effect of a 1 percent increase in public expenditure productivity would have been an increase of \$90 billion in resources available for additional public investment, social programs, or deficit reduction.

¹ A large body of literature exists in this area. For collections of papers on various aspects of public expenditure policy, see, for example, Sahni (1972), Posner (1977), Haveman and Margolis (1983), and Chu and Hemming (1991). A concise presentation of budgetary choice as a three-tier problem (public versus private provision, public sector output mix, and program design) may be found in Peacock (1979, Chapter 8).

² If all public expenditure programs were cost-effective, the public sector output mix question, for a given level of aggregate public expenditure, would be equivalent to the public expenditure composition question, and an increase in an output (and its cost) could not be achieved without reducing other outputs (and their associated costs).

³ According to public choice theory, legislators have an incentive to enhance their political support by voting for spending projects in their districts because wealth is transferred to their voters while the costs are borne by all voters in the country. By the same token, legislators are reluctant to increase taxes that affect their constituencies (Buchanan, Rowley, and Tollison (1987)).

⁴ A survey by the authors for 1991 found that the economic classification of expenditure was provided in the IMF's recent economic development documents for 85 percent of the countries surveyed. The functional mix classification was provided for only 40 percent of the countries. In contrast, the 1993 *Government Finance Statistics Yearbook* provides data on the functional mix for 97 countries, but with considerable time lags.

⁵ See the discussion of the effects on growth and the debt burden in Tanzi (1989) and (1991).

⁶ Zietz and Valdes (1986) found that the subsidization and protection of beef, sugar, maize, and wheat production in industrialized countries impose significant costs on developing country exporters in terms of forgone foreign exchange earnings and reduced welfare. While consumers in importing countries may benefit from low prices, worldwide resource allocation may be distorted.

⁷ See Bayoumi, Hewitt, and Schiff (1995) for a related discussion.