

PUBLIC EXPENDITURE AND ECONOMIC GROWTH: A REVIEW OF THEORETICAL AND EMPIRICAL LITERATURE

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Abstract

Government fiscal operations through public spending are recognized as major tool for macroeconomic management and play a very important role in stimulating economic growth and development. Economic theory has show that government spending may either be beneficial or detrimental to economic growth. The literature has identified three key determinants of government expenditure: institutions and government failures (i.e. constitutional arrangement, policy-myopia and political instability), economic fundamentals (i.e the stage of economic development, demographic forces, and country size), and globalization (i.e trade and financial openness). Theory does not only predict that fiscal policy affects growth by the magnitude of government spending but also by the expenditure structure or composition. The literature is inconclusive about the causal relationship between public expenditure and growth; there is a general tendency for government consumption to be negatively associated with growth performance, although the evidence for this is weaker in studies of developing countries.

INTRODUCTION

One of the main features of the contemporary world is the continuing growth in public sector expenditure in developing world as well as developed countries. In particular, since the World War II era there has been enduing growth of public expenditure, regardless of the nature of political and economic system.

Public expenditure is supposed to be a major tool of economic management and has a key role to play in stimulating economic growth and development. The effects of fiscal operations can be felt through policies and programmes that provide signals to direct private sector infrastructural development. Such projects and programmes when undertaken in the economic and social sectors can contribute significantly to the overall level of economic growth and well-being of the people.

Governments incur expenditure in order to fulfill the following roles in the economy: (a) to correct distortions or market failures; (b) regulate private activity that might harm society; (c) provide public goods and services (i.e. economic and social infrastructure); and (d) often engage in productive activity.

Some of those activities improve economic efficiency while others reduce it. There is also considerable evidence of inefficiency in the public provision of goods and services.

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However, the nature and extent of government involvement in the economy significantly between the developed industrial market economies and the developing world, particularly the low-income economies.

Historically, government in the developing economies have exercised relatively greater control and direction over their economies in all the above categories, while public sector involvement in the developed economies has remained largely confined to the provision of public goods and services, regulatory functions and the management of income-maintenance programmes.

A number of leading economists have argued that government size has had a negative impact, one way or another, on economic performance of industrial market economies. For the low-income economies, the evidence, though mixed, points more towards a positive overall impact of government on growth performance. Be that as it may, a number of questions come to mind here:

- (A) What are the factors that led to the continuous growth of the public sector expenditure?
- (b) Has the size of government expenditure any impact on economic performance?
- (c) Is it public expenditure that causes growth or growth that led to increase in public expenditure?

This study explores both the theoretical and empirical literature in finding answers to the above questions.

The rest of the paper is divided into three sections. We consider the growth of public expenditure and its effect on economic growth in the next section. The third section examines the issue of causal relationship between public expenditure and economic growth. The fourth section gives the summary and conclusion to the paper.

2.0 Growth And Growth Effect Of Public Expenditure

2.1 Theories of Public Expenditure

In traditional Keynesian macroeconomics, many kinds of public expenditure, even of a recurrent nature, can contribute positively to economic growth through multiplier effects to aggregate demand. On the other hand, government consumption may crowd out private investment, dampen economic stimulus in the short run and reduce capital accumulation in the short long run. Strictly, crowding-out is due to fiscal deficits and the associated effect on interest rates (Diamond, 1989).

Adolf Wagner was probably the first scholar to recognize a positive correlation between economic growth and the growth of government activities and he postulated a theory known as the law of increasing state activities in 1890. According to him, there are inherent tendencies for the activities of the government to grow both intensively and extensively. There exists a functional relationship between the growth of the economy and the growth of government activities, and the government sector grows faster than the economy. All kinds of government irrespective of their level, intensity and sizes had exhibited the same kind of tendencies of increased expenditure. Studies based on endogenous growth models distinguish between distortionary or non-distortionary taxation and between productive or unproductive expenditures. Expenditures are categorized as productive if they are included as arguments in private

production function and unproductive if they are not (Barro and Sala-I-Martin, 1992). This categorization implies that productive expenditures have a direct effect upon the rate of economic growth but unproductive expenditure have an indirect or no effect.

The theory of bureaucracy proposed by Niskanen (1971) emphasizes the role of self-interest of the bureaucrats. The bureaucrats are interested in maximizing their own utility their utility function consists of salary, perquisites, prestige, power etc. but these items are a direct function of the budget of the bureaus or departments. Thus, the bureaucrats are mainly interested in maximizing their utility. However, this theory probably overemphasizes the role of bureaucrats. In the ultimate analysis, the bureaucrats have to depend upon the politicians for their budget. In that sense it is the politicians who have the real power with regard to the budgets.

The displacement effect hypothesis was propounded by Allan T. Peacock and Jack Wiseman (1961). Their main contention was that public expenditure does not increase in a straight or continuous manner, but in "jack or Stepwise" fashion. At times some social or other disturbance occur, which show the need for increase in public expenditure which the existing level of revenue cannot meet. Therefore, public expenditure increases will make the inadequacy of the existing level of revenue clear to everyone.

Peacock and Wisemen argued that under normal condition of peace and economic stability, change in public expenditure are rather limited. These changes are bounded by "tolerable" limits of taxation. However, during crises and calamities, such as wars, people do not mind higher taxes and their threshold level of taxation rises permanently. Thus, government expenditure over time appears to outline a series of plateaus separated by peaks.

2.2. Growth of Public Expenditure

The literature has identified three key determinants to government expenditure: institution and government failure (i.e constitutional arrangements, policy-myopia and political instability), economic fundamentals (i.e the stage of economic development, demographic force, and country size), and globalisation (i.e trade and financial openness).

Since the World War II era there has been enduring growth of public expenditure across the globe, regardless of the nature of political and economic system. In developed countries, it has always grown whatever the political orientation of the government, with a few exceptions. Only under extremely strong constraints has public expenditure been cut in absolute term.

Wars are episodes of extremely high public expenditure, followed usually by a return to normality.

Fiscal deficits have become a recurring feature of public sector financing all over the world. Its widespread use is partly influenced by the desire of various governments to respond positively to the ever increasing demands of the populace and to enhance accelerated economic growth (Ariyo, 1993). The phenomenon of deficit financing is more rampant in developing countries where the citizens look forward to the government for the provision of most basic needs

One striking piece of empirical evidence from the post World War II era is the rise in the proportion of current expenditures in total government spending in many of the OECD economies. In particular the increase in government consumption and transfers has been widespread amongst OECD economies since the mid- 1960s (Alesina and Perotti, 1996).

The other notable feature of government budgets in the OECD economies is that many of the attempts to stabilize increasing debt burdens in the late 1980s and 1990s have resulted in increases in taxation and in cuts in capital outlays. There are of course exceptions to this (especially the fiscal adjustment in Ireland in 1987-89), and it has been pointed out by Alesina and Perotti (199, 1997) that most successful (i.e long lasting) fiscal adjustments tend to concentrate on cutting government transfers and consumption whilst most unsuccessful fiscal adjustment tend to result from cuts in capital expenditures. They also report that, following successful adjustments, there is a tendency for private investments to boom. This rise in the share of government consumption in GDP (and the consequent fall in government investment) has coincided with a slow-down in productivity growth.

One could also explain the growth of public expenditure in terms of economic and non-economic factors. For some countries like Malaysia, non-economic factor have been more important in explaining the growth of public expenditure than economic factors. Among the economic factors, Chee, considers the relative openness of the Malaysian economy as one of the important reasons for the growth. The political activation of ethnicity has been the most important non-economic factor according to him.

According to Henrekson (1993), Wagner saw three main reasons for the increase in the government's role.

First, industrialization and modernization would lead to a substitution of public for private activities. Expenditure on law and order as well as on contractual enforcement would have to be increased.

Second, an increase in real income would lead to an expansion of the income elastic "cultural and welfare" expenditures. Wagner cited education and culture to be two areas in which the government could be a better provider than the private sector; thus the public sector would grow. After basic needs of the people are satisfied, consumption Patten of people expands towards activities such as education and culture.

Third, natural monopolies such as the railroads had to be taken over by the government because private companies would be unable to run these undertakings efficiently because it would be impossible to raise such huge finance that are needed for the development of these natural monopolies

The perceived social market failure (i.e the failure of the private sector to produce goods and services with public goods properties) has increased the scope of the government sector.

2.3 Effect of Public Expenditure on Economic Growth

The basic question growth here is: how important is the public spending in

Promoting economic growth? Or put in another way: can countries better use fiscal polity, (and in particular, the level/magnitude and composition of public expenditure), to promote sustainable increase in growth and welfare for low- and middle- income countries?

The scope for policy to influence economic growth depends on the underlying model of growth. So long as the Solow model dominated economists' view of growth, there was little role for fiscal policy to influence the long term rate of growth, which depended on exogenous technical progress.

The theoretical literature on fiscal policy has studied the effect of 'productive' and 'unproductive' spending and distortionary and non-distortionary taxation on long term growth. This literature generally predicts that productive spending financed by non-distortionary taxes will have a positive effect on long term growth whereas the opposite combination (unproductive spending financed by distortionary taxation) will have a negative effect.

Government activity may directly or indirectly increase total output through its interaction with the private sector. Lin (1994) outlines some important ways in which government can increase growth. These include provision of public goods and infrastructure, social services and targeted intervention (such as export subsidies).

Early model of growth that featured government expenditure used fairly simple characterizations of productive and unproductive spending; public investment was viewed to be productive whereas public consumption was unproductive.

Lucas (1988) and Barro (1990) opened the door to rich literature on endogenous growth theory and a corresponding attempt to develop our understanding of the implication for fiscal policy. Tanzi and Zee (1997) provide a relatively early review of the resulting literature on fiscal policy and concluded that despite the lack of robust empirical results, endogenous growth theory provided the basis for confidence that fiscal policy could affect long run growth performance of countries.

Devarajan et al. (1996) developed a model with public investment and consumption expenditure to show that the growth impact investment could be negative if there was excessive investment. Glomm and Ravikumar (1997) considered the implications of government expenditure on infrastructure (which influences private production) as well as on education which results in human capital accumulation.

More recent literature (Zagler and Durnecker (2003), Glomm and Rioja (2006), Blankenau and Simpson (2004), Agenor and Neanidis (2006)) provide a more disaggregated discussion of government expenditure, typically including spending on public infrastructure, health, and education, which are described as providing inputs for private production. Zaler and Durnecker (2003) define an economy where output is produced using labor, private capital and public infrastructure expenditure and consider the effects of government spending and taxation on long term growth rates. Glomm and Rioja (2006) consider the implications of sniffing expenditure from transfers to infrastructure on education and conclude, based on empirical evidence from Brazil, that at the margin the growth implications are small. Blankenau and Simpson (2006) focus on education expenditure and growth.

Some of the papers took account of the interdependence among these expenditures, With the productivity of health spending depending on education and infrastructure expenditure or stocks, and vice versa. The intuition behind such complementarities is well known-good sanitation and water supply infrastructure has large health benefits, including a reduction in incidence of malaria and gastro-intestinal diseases. This in turn has a positive effect on school attendance rates and on learning outcome (Bundy and et al. (2005) as well as on labor productivity in market activities.

The conclusion that can be drawn from the literature is that while public spending can crowd-out private investments, it can also stimulate private sector productivity by the externality of the public good provided.

Furthermore, government activities to secure property rights, to enforce contracts and to guarantee a stable monetary regime provide the foundation for a smooth operation of a market economy.

Thus, the net impact on aggregate output is the sum of both of these effects.

The World Bank has argued in two recent policy papers that fiscal policy design should seek to ensure macroeconomic stability as well as promote growth and the long-run welfare of a country. The growth impact of the composition of public expenditure is an important aspect of the design of fiscal policy that is to achieve such objective.

The impact of public expenditure on growth will depend on its nature or the structure or category or composition of such expenditure.

Empirical evidence on the government spending-growth relationship is diverse, mostly based on cross-section studies that often include a sample of both advanced and developing countries. The main conclusion in most of these studies is that government consumption spending has a negative impact on growth (Grier and Tullock, 1989; Barro, 1991; Easterly and Rebelo, 1993; Tanninen 1999). Studies using a sample of only advanced (mostly OECD) countries obtain similar results. For instance, Hansson and Henrekson (1994) find that government consumption spending is growth-retarding but spending on education impacts positively on growth. Kneller et al (1998) find that productive spending has a positive, while non-productive spending has a negative impact on growth of OECD countries (1970-95). Ram (1986), using a sample of 115 countries, found government expenditure to have significant positive externality effects on growth particularly in the developing countries (LDC) sample, but total government spending had a negative effect on growth. Lin (1994) used a sample of 62 countries (1960-85) and found that non-productive spending had no effect on growth in the advanced countries but a positive impact in LDCs.

Other studies have investigated the impact of particular (functional) categories of public expenditure. For example, Devarajan et al (1993), using a sample of 14 OECD countries, found that (spending on health, transport and communication have positive impacts). Devarajan et al. (1996) developed a model with public investment and consumption expenditure to show that the growth impact of public investment could be negative if there was excessive investment. Glomm and Ravikumar (1997) considered the implications of government expenditure on infrastructure (which influences private production) as well as on education which results in human capital accumulation.

In the majority of studies, total government spending appears to have a negative effect on growth (Romer, 1990; Alexander, 1990; Folster and Henrekson, 1999).

The empirical evidence is inconclusive; there is a general tendency for government consumption to be negatively associated with growth performance, although the evidence for these is weaker in developing countries. This could be due to the diversity of samples in the various studies and problem regarding the quality of the data. Some misspecification problem may arise due to omitted variables (discussed in Lin, 1994; Slemrod, 1995; Folster and Henrekson, 1999).

Studies for LDCs provide mixed evidence. There is evidence that, unlike in the case of developed countries, consumption spending may be growth enhancing and investment spending growth retarding (Devaarajan et al, 1996). However, Landau (1983), using data on 27 LDCs, found that consumption spending has a negative effect on growth.

A similar result was found using a sample of 65 LDCs (Landau, 1986), and government investment spending also seem to have a negative impact.

3.0. Causal Relationship between Public Expenditure and Growth

Among all economists who discussed the association between public expenditure and economic growth, Wagner and Keynes are among the most noted with their apparently contrasting viewpoints on the causal relation.

Among several interpretations of Wagner's law, the most popular one would be that the increase in economic activities, leads to an increase in government activities, which in turn result in the rise of public expenditure. This implies that public expenditure can be treated as an outcome, or an endogenous factor of the growth of the economy.

On the other hand, Keynes regards public expenditure as an exogenous factor which can be utilized as a policy instrument to stimulate economic growth.

These two completely opposite arguments reflect the viewpoint over the issue of what is the causal relation between economic growth and public expenditure.

Empirical studies based on time series analysis and specific country case studies are not many and mainly address causality between government spending and growth. Hsieh and Lai (1994) used data on G7 countries (1885-1987) and found no evidence of causality, but government expenditure had a marginal effect on growth.

On the other hand, Ghail (1998), using data for 10 OECD countries, found evidence that government size (measured as government consumption spending) Granger-causes growth in most countries. Chan and Gustafson (1991) found that government expenditure has a positive impact on private consumption in the U.K.

Time series analysis for specific countries can avoid some of the econometric and sampling problems. Specifically, cross-section analysis assumes the coefficients are the same for all countries in the sample (econometric techniques exist to address this problem, but they are imperfect) whereas time series analysis can address country-specific features. This may go some way to explain the variety of results reported, especially why variable so often appear insignificant. A time series country study is potentially more informative, although the findings cannot be generalised to other countries.

Gemmell (2007) provides a useful review of the evidence, and concludes that more

recent literature uses more reliable methods (including a clearer specification of the Government budget constraint) to derive robust evidence; at least for OECD countries, of long run impacts of fiscal policy on economic growth. Even for developing countries he finds that, consistent with theory, recent studies show a positive medium to long-run growth effect of certain categories of expenditure, such as transport and communication infrastructure, education and health. However, the complementarities between health, education, infrastructure and growth involve trade-offs in the actual development process. Public resources are limited and given the constraints government often need to weigh the benefits of expenditure on one against the benefits of spending on the other.

4.0. Summary And Conclusion

Since the World War II era there has been enduring growth of public expenditure. Only under extremely strong constraints has public expenditure been cut in absolute terms. Increase public expenditure could be explained in the terms of economic and non-economic factors. Reasons for the increase in the government expenditure include among other things: the tendencies for the activities of the government to grow both intensively and extensively industrialization and modernization would lead to a substitution of public for privates Natural monopolies such as the railroads had to be taken over by the government because private companies would be unable to run these undertakings efficiently. The perceived social market failure (i.e., the failure of the private sector to produce goods and services with public goods properties) has increase the scope of the government sector. A positive correlation between economic growth and the growth of government activities has been discovered.

Public expenditure can be treated as an outcome, or an endogenous factor of the growth of the economy or as an exogenous. Government consumption spending is growth-retarding but spending on physical infrastructure, education or human capital can be growth-enhancing although the financing of such expenditures can be growth-retarding (for example because of disincentive effect associated with taxation).

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