

Expenditure Efficiency and the Optimal Size of Government in Developing Countries

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We investigate the role of efficiency in the relationship between government expenditure and economic growth. We examine the optimal size of government spending in maximizing growth. Using data of 63 developing countries from 1990 to 2003, we calculate efficiency scores using Data Envelopment Analysis, and incorporate them into a simple model of growth with government expenditure.

There are many studies on government expenditure efficiency; however, only few of them address macroeconomic performance. One study done by Angelopoulos et al. (2008) estimates public sector efficiency and uses it to examine the relationship between fiscal size and economic growth. Using data from 64 (developed and developing) countries in the period between 1980 and 2000, this study finds that efficiency factor significantly explains the non-monotonic relationship between fiscal size and economic growth. They find that the relationship between government and growth changes depending on the level of efficiency. However, the study does not conclude the effect of efficiency on the optimal government size for maximizing growth.

By taking into account efficiency in the relationship between government size and economic growth, our study seeks the optimal size of government spending in the case of developing countries. Using Data Envelopment Analysis (DEA), we calculate efficiency score and incorporate it in the estimation of government spending on growth, as when governments spend their budget efficiently in the right direction to maximize growth, the required size of government may be influenced.

We find significant effect of government expenditure efficiency on the relationship between government expenditure and economic growth. When efficiency exceeds a certain level, the effect is positive, otherwise it is negative. When we consider efficiency, the optimal size of government can be achieved only after a certain efficiency level, and it decreases (increases) as the level efficiency increases (decreases).

The finding of this study implies that the improvement of efficiency will result in smaller optimal government size required to maximize growth. Therefore, we suggest that governments of developing countries should pay attention not only on the size of government expenditure but also on the efficiency of their spending. The improvement of the spending efficiency can contribute solution to the problem of fiscal space of the developing countries.