Chapter 7

Dynamics of Public Expenditure on Defense and Economic Growth Pattern in Developed and Developing Countries

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ABSTRACT

Endogenous growth theories refer that public spending has a considerable bearing on economic growth. Rise in public spending retards rate of economic growth. As the economic structure across the developed and developing countries varies significantly, the effect of public spending on non-productive activities may differ across these countries. In this context, the authors develop a comparative study for looking at the dynamic relationship between public expenditure on defense activities and pattern of economic growth between developing and developed countries across the globe over the period 1960-2015. Using data from SIPRI and World Bank, the authors invoke the panel data regression with panel co-integration test followed by panel VAR. Findings indicate that developed countries have positive impact of defense spending on growth, and the relationship is bi-directional, whereas the impact is found to be negative in developing nations.

INTRODUCTION

The Classical school of thought postulates that an increase in military expenditure is expected to retard growth. Rise in the spending for defense sector raises the interest rate, which will crowd out private investment and the rate of growth will decline. The Keynesian school of thought, on the other hand, argues that
an increase in defense spending inspires aggregate demand, raises purchasing power and national output and creates positive externalities (Narayan & Singh, 2007). According to the endogenous growth theories, for example Barro (1990), government expenditure has an important bearing on long-run growth of a nation. Its influence depends on its size and its different components. For instance, public expenditure for the expansion of infrastructural facilities, and for expanding education, research and development (R&D) and public infrastructure will have positive effects on economic growth of a nation. In contrast, growth in government spending, mainly based on non-productive expenditure is accompanied by a reduction in economic growth. Defense spending can be segregated into two categories. In one category the expenditures to expand infrastructure, education and research and development are included, and in the second category expenditures for purchasing arms and ammunitions are incorporated. So, growth of defense spending based upon the expansion of the first category may improve the economic growth. However, the rise in defense spending with the increase the second category of spending may retard growth. Therefore, the nexus between defense spending and economic growth is a controversial one.

Defense spending promotes economic growth by developing new technologies that spill over into the private sector of an economy. It is frequently observed that a significant part of defense spending is utilized to create socioeconomic structure and public infrastructure is developed. It increases demand and employment by a multiplier effect, according to the Keynesian theory employment, interest and money. On the contrary, defense spending may hinder economic growth or reduce the pace of economic growth through the opportunity costs by crowding out investment or other productive activities, i.e., defense spending reduces private investment, which brings down the employment income and pace of growth. Evidences exhibit that rise in defense spending raises the tax burden and government borrowings, which may reduce economic growth. Based upon this analysis it can easily be recognized that the final impact of defense spending is indeterminate, and it depends on the relative strength of the conducive and harmful effects of defense spending on economic growth. The channels, through which government expenditure for defense activities will be done, are instrumental to the final relationship between defense spending and economic growth. This indicates that the impacts of defense spending on economic growth varies across the country settings, as the funds allotted for defense sector allocated differently across the country settings.

For the reasons stated earlier, some studies looking at the relationship between defense spending and economic growth, conducted on some countries’ data reveal that defense spending is conducive to economic growth (Benoit, 1973, 1978; Weede, 1983; Cohen et al., 1986; Stewart, 1991; Ward et al., 1992; Biswas, 1993; Knight et al., 1996; Murdoch et al., 1997; Yakovlov, 2007). According to the findings and arguments of the studies done by these researchers, defense spending stimulates and speed up economic growth through the expansionary impact on the aggregate demand and resultant Keynesian multiplier effects on employment and output and income. The positive externalities of spill-over effects of defense expenditure in research and development (R&D) in defense industries are likely to promote the general economic activities, through education, medical care, technical training, and public infrastructure, which improve transport and communication networks. This expansion of infrastructure helps the private sector production activities and enables the economy to move to a higher growth trajectory.

On the contrary, another group of studies across some other country settings have detected that military expenditure may retard growth (Capplen et al., 1984; Deger, 1986; Faini et al., 1984; Alaxander, 1990; Mintz & Huang, 1990, 1991; Chowdhury, 1991; Linden, 1992; Dunne and Mohammed, 1995; Heo, 1999; Galvin, 2003; Pieroni, 2009a, 2009b; Chang et al., 2011; Chang et al., 2014). These researchers have argued that defense spending reduces the resources used for productive purpose through their use