# MILITARY EXPENDITURE AND GDP IN MIDDLE EASTERN COUNTRIES: A PANEL COINTEGRATION APPROACH

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In the defence economics literature, the effects of military expenditure on economic growth have been examined extensively. There are alternative arguments concerning the growth effects of military expenditure and each of these arguments is empirically supported. It has been argued that there is trade-off between productive investments, such as health and education expenditures, and military expenditures. Hence defence expenditures may retard economic growth by crowding out investment, health and education spending and infrastructural improvement. On the other hand, military expenditure may enhance economic growth through Keynesian type aggregate demand effects. There may be technological spin-offs, positive externalities from infrastructure and human capital. If countries are experiencing under-employment, defence expenditures may have a stimulative effect, with higher aggregate demand, production and employment. Investment in human capital is another area where there may be substantial positive externality of defence spending on the rest of the economy. However, there are numerous feedbacks of the change in defence spending which makes the final effects quite complex. Final causality may not be clear-cut.

Even though, there are empirical studies concerning the military expenditure and economic growth relationship for OECD countries, Latin American countries and NATO countries, there is limited empirical evidence regarding Middle Eastern countries. The aim of this paper is to examine the effects of military expenditures on economic growth for Middle Eastern countries and Turkey for the time period 1989-2002. The empirical modelling is based on a bivariate cointegration model for the **heterogenous panel**. Univariate country- by – country and panel unit root tests generally fail to reject the null of a unit root in military expenditure and GDP variables. Application of residual-based panel test for cointegration with higher power than the individuals tests indicates that military expenditure and GDP cointegrated.

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