

**DEFENSE EXPENDITURE AND ECONOMIC GROWTH:  
A CASE STUDY OF PAKISTAN**

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**DEFENSE EXPENDITURE AND ECONOMIC GROWTH: A CASE STUDY OF  
PAKISTAN**

**BY**

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## ABSTRACT

The objective of this study was to examine whether there is exists a long run relationship between defense expenditure and economic growth, and investigate the plausibility of using defense expenditure as a macroeconomic stabilization tool (referred as Military Keynesianism Hypothesis) in case of Pakistan over the period 1975 – 2010. The Autoregressive Distributed Lag (ARDL) bounds testing approach was used to find out long run relationship between defense expenditure, economic growth, development expenditure, inflation and national saving. The Augmented Dickey-Fuller (ADF) test was used for checking stationarity. The results of ADF test revealed that inflation and saving are stationary at level while defense expenditure, development expenditure and GDP become stationary at first difference. Results of ARDL indicated that data is stable and confirmed the existence of long run relationship. The robustness of the model has been confirmed by diagnostic tests for serial correlation, function form, normality, heteroscedasticity, and structural stability for the model. The selected model generally passes all diagnostic tests and proves the robustness of the selected model. Moreover, results show that defense expenditure has negative impact on economic growth while saving has positive impact on economic growth but other variables have no impact on economic growth. These results for long run negative relationship between defense expenditure and economic growth suggest that in case of Pakistan MKH does not hold over the estimation period. The negative long run relationship between defense expenditure and economic growth implies that the policy makers need to have a greater focus on development spending as compared to defense spending.

**Keywords:** ARDL, economic growth, defense expenditure, inflation, Pakistan.

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## **LIST OF ABBREVIATION**

ARDL	Autoregressive Distributed Lag
ADF	Augmented Dickey Fuller
AIC	Akaike Information Criteria
CUSUM	Cumulative Sum
DF	Defense Expenditure
DV	Development Expenditure
ECM	Error Correction Model
FBS	Federal Bureau of Statistics
FBR	Federal Bureau of Revenue
FATA	Federally Administered Tribal Area
GDP	Gross Domestic Product
GNP	Gross National Product
GMM	Generalized Method of Moments
HDI	Human Development Index
INF	Inflation

LDC	Less Developed Countries
MFN	Most Favored Nation
MDG	Millennium Development Goals
MKH	Military Keynesian Hypothesis
NFC	Navy Federal Credit
NATO	North Atlantic Treaty Organization
OCED	Organization for Economic Co-operation and Development
OLS	Ordinary Least Square
PPP	Purchasing Power Parity
PP	Phillips Person
R&D	Research and Development
SIPRI	Stockholm International Peace Research Institute
SSA	Sub-Saharan Africa
SAV	Saving
SIC	Schwarz Information Criteria
USA	United State of America
VECM	Vector Error Correction Model

WGI

World Governance Index

WBI

World Bank Index

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 BACKGROUND OF THE STUDY**

The relationship between defense expenditure and economic growth has attracted considerable interest among economists as well as policy makers. The military spending is a global issue during the end of the Second World War which provided a chance for developing as well as developed countries to decrease their military spending. The purpose of increasing defense expenditure is mainly to cooperate with local insecurity and arm race. Moreover, developed countries have focus on the point about possible harmful effects of unfettered military expenditure in developing countries. It was argued that military expenditures may lead to problem of balance of payment deficit, decrease in economic growth, and as a result of it, important social and economic expenditure may be crowded out. Therefore, these concerns have been raised in the past wars in Afghanistan, Iraq, Kashmir, Bosnia, Chechnya, Palestine and collapse of Soviet Union.

The relationship between defense expenditure and economic growth has been highly debating among economist. In general, results of different studies have shown that defense expenditure can affect the economy both positively and negatively [Yildirim *et al.*, 2006; Dakurahet *et al.*, 2000; Kollias *et al.*, 2004]. Previous results were inconsistent and mix; thus defense expenditure can affect economic growth in different ways. Hassan *et al.* (2003) stated that defense expenditure can affect economic growth positively

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