Emerald

Contributions to
CONFLICT MANAGEMENT,
PEACE ECONOMICS
AND DEVELOPMENT

VOLUME 13

ARMS AND CONFLICT IN THE MIDDLE EAST

Series Editor MANAS CHATTERJI

Professor, School of Management, Binghamton University, US
Guest Professor, Peking University, Beijing, China

RIAD A. ATTAR

ARMS AND CONFLICT IN THE MIDDLE EAST

Contributions to
Conflict Management, Peace Economics and Development Volume 13

SERIES EDITOR
MANAS CHATTERJI

BOOKS IN THE SERIES

Eurasia: A New Peace Agenda, edited by M. D. Intriligator

Cultural Differences between the Military and Parent Society in Democratic Countries, edited by G. Caforio

Managing Conflict in Economic Convergence of Regions in Greater Europe, edited by F. Carluer

Military Missions and their Implications Reconsidered: The Aftermath of September 11th, edited by G. Caforio and G. Kuemmel

Conflict and Peace in South Asia, edited by M. Chatterji and B. M. Jain

War, Peace, and Security, edited by Jacques Fontanel and Manas Chatterji

Armed Forces and Conflict Resolution, edited by G. Caforio, G. Kümmel and B. Purkayastha

Regional Development and Conflict Management: A Case for Brazil, by Raphael Bar-El

Crisis, Complexity and Conflict, by I. J. Azis

Putting Teeth in the Tiger: Improving the Effectiveness of Arms Embargoes, edited by Michael Brzoska and George A. Lopez

Peace Science: Theory and Cases, by P. Gangopadhyay and M. Chatterji

Advances in Military Sociology: Essays in Honor of Charles C. Moskos, 12A/B, edited by Giuseppe Caforio

Arms and Conflict in the Middle East, by Riad A. Attar

Contributions to
CONFLICT MANAGEMENT, PEACE ECONOMICS
AND DEVELOPMENT VOLUME 13

ARMS AND CONFLICT IN THE MIDDLE EAST

RIAD A. ATTAR
Murray State University, USA

United Kingdom – North America – Japan
India – Malaysia – China

Emerald Group Publishing Limited
Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2009

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

ISBN: 978-1-84950-661-8
ISSN: 1572-8323 (Series)

Awarded in recognition of Emerald's production department's adherence to quality systems and processes when preparing scholarly journals for print

INVESTOR IN PEOPLE

CONTENTS

LIST OF FIGURES

LIST OF TABLES

FOREWORD

It was widely expected that when the Cold War was over, there will be peace dividends and the amounts of military spending will decrease. It was also believed that worldwide conflict will decline. However, these have not taken place. In place of international tension and conflict, we have intra-country/regional/ethnic conflicts and wars. Military spending in some geographical areas has increased. This is true for South Asia and the Middle East. This book addressed to the Middle East has two objectives. First, it makes a detailed analysis of the root causes of conflict in the Middle East, the amount of military spending in the region, and its opportunity cost for economic development.

In the second part, the author has adopted an innovative approach to reformulate the production function taking into account political variables not considered previously in the production function literature. It has given a fresh perspective of production function of arms spending in sociopolitical framework. This explains the distinction of economic abstraction and facts of economic life by inserting conflict variables in the production function. It also takes consideration of interstate and intrastate factors. The empirical findings have been supported by extensive data and using sophisticated econometric techniques and robust tests. If such a multidimensional production function can be perfected, it can be used to determine policy decisions to analyze the conflicts in the Middle East.

Manas Chatterji
Series Editor

CHAPTER 1

INTRODUCTION

This study assesses the effect of politics and conflicts on growth in sixty-nine developing societies. Political economists (e.g., Harrod, 1939; Domar, 1946; Solow, 1957, 1988; Denison, 1967, 1985; Feder, 1982; Ram, 1986; Mintz & Huang, 1990, 1991; Ward & Davis, 1992; Mueller & Atesoglu, 1993a, 1993b; Heo & DeRouen, 1998; Heo, 1998) have not empirically examined the results of political factors on economic development and growth (but see Heo & Mintz, 2002). In this study, I developed and applied an augmented production function (PF) model to sixty-nine developing countries from 1960 to 2002 and tested it with several political and conflict variables: political freedom, institutional freedom, regime type, stability, ideology, interstate conflicts, intrastate conflicts, and total conflicts. I utilized statistical methods: non-linear least squares (NLS) and cross-national time series (CNTS) analyses to investigate the impact of political and conflict variables on economic growth (EG) from 1960 to 2002. I used mathematical and formal modeling to investigate the Arab Israeli conflict and the political economy and arms in the Middle East (ME). And I used case studies to illustrate my theories.

1.1. THE PRODUCTION FUNCTION RESEARCH PROGRAM

The current study is an extension of the PF model research program that began after the Great Depression in the early 1930s. The purpose of the study is to introduce political dimensions to the PF defense-growth model and to assess the impact of political and conflict variables on EG. The study theorizes that excluding political factors from the PF defense-growth model hampers any realistic explanation of the problems of EG; that the influences of economic and military variables and their externalities effects vary across different political contexts; that political factors are at least as important as economic factors in determining the outcome of EG; that intrastate and

interstate conflicts have differential effects on EG (both types of conflicts have negative effects on EG; however, intrastate conflicts have more damaging effects on growth than do interstate conflicts); and that the impact of conflicts on EG differs across regions.

By incorporating political and conflict variables such as political freedom, institutional freedom, regime type, regime stability, regime ideological base, and intrastate, interstate, and total conflicts, I augmented the PF to include the fundamental dimensions of political regimes. Consequently, the PF model should gain more explanatory power to predict EG and development of nations. I extended the applicability of the PF defense-growth model to the Third World, which has a level of economic and political development different from the First World. The main findings of the study offer important contributions to the study of EG in developing countries and provide guidelines to policy decision makers (PDMs) in evaluating their "guns versus butter" alternatives.

The study provides a preponderance of empirical evidence that the externality of military spending hinders EG, while the externality of non-military spending promotes EG in all political contexts. This finding is huge because it resolved a controversial issue that has been debated for more than three decades. Also, the results of the study show that the impact of the non-military sector on EG is positive and significant in the majority of countries, while the impact of the military sector on EG is positive and significant only in a minority of countries.

Despite the proliferation of studies on the impact of military spending on EG, it was inconclusive before the current research whether defense spending hinders or promotes EG. In fact, despite many research efforts, no strong conclusion about the relationship between military spending and EG can be drawn from the literature. The inconsistent results led Chan (1985, p. 405) to conclude that a review of the literature in this area is "as likely to bewilder as it is to enlighten" (see also Mintz & Stevenson, 1995, p. 283). Mintz and Stevenson (1995, p. 85) wrote, "The literature has failed to provide any meaningful consensus on the question of whether defense spending encourages or hinders economic growth. Indeed, any study that fails to address these issues is unlikely to contribute to such an answer." This study significantly contributes to settling such a question.

The current study is the first to add conflict variables to the PF defense-growth model and test them empirically across countries and regions. The CNTS analysis with external and internal conflicts (2,349 observations) shows unequivocally that both types of conflicts, intrastate and interstate, have negative effects on EG; however, the effects of intrastate conflicts have

far more damaging effects on EG than do those of interstate conflicts. The impacts of intrastate and interstate conflicts in the ME are negative and significant under all political contexts, and the differential impact of the more damaging effects of intrastate conflicts on EG also hold under all political contexts. The CNTS analysis of five regions – the ME, Latin America, Asia, Africa, and the Caribbean region – shows that the impact of conflicts on EG differs across regions. The ME offers a preponderance of evidence that internal and external conflicts have a negative and significant impact on EG in all political contexts, more so than in other regions.

The current study has very important policy implications since it provides compelling empirical evidence and guidelines to PDMs on how to allocate the resources of their states and adopt policies that promote EG. The main guidelines that I believe are beneficial to PDMs are as follows. First, PDMs should reform their political system to contribute to EG. Improving levels of freedom, democracy, and openness of the political system are as important as economic factors to promote EG. Second, the reallocation of resources to the civilian sector is the *sine qua non* to improve the performance of the economy in developing countries. The leaders of Middle Eastern countries should pay closer attention to this point due to the enormous amount of resources that they spend on the military sector. Third, leaders of developing nations should pursue policies of national reconciliation between rich and poor and among ethnic and religious groups because domestic conflict has prodigious damaging effects on the performance of the national economy. In the ME in particular, economic development is more likely to improve if the leaders pursue policies that advance domestic reconciliation and international peace.

To illuminate the above-mentioned contributions of this study and show its importance in the evolution of the PF defense-growth model research program, I will first review the evolution of the neo-classic PF model; second, I will review the logic of the incorporation of defense spending factors into the neo-classic model of EG; and finally, I will review the logic of the incorporation of political and conflict variables into the PF defense-growth model.

1.2. THE EVOLUTION OF THE PRODUCTION FUNCTION

Solow (1988, p. xi) wrote, "Growth theory did not begin with my articles of (1956) and (1957), and it certainly did not end there. Maybe it began with

The Wealth of Nations; and probably even Adam Smith had predecessors.'' The Physiocratic school founded by François Quesnay (1694–1774) preceded Adam Smith in developing the fundamental ideas to achieve EG. The Physiocrats articulated the roles of economic activities that expand the country's revenue, such as industrialization, free trade, and investment. The Physiocrats believed that a country should concentrate on manufacturing only to the extent that the local availability of raw materials and of suitable labor enabled it to have cost advantage over its overseas competitors (Muller, 1978; Eltis, 1988). Thus, the complete lifting of all restrictions on local and foreign sales of agricultural products and sufficient private investments would only be forthcoming if the authorities improve the general economic climate. In accordance with the Physiocratic doctrine, the economic climate could be improved by desisting from mercantilist policies, terminating the state's policy of providing special privileges to certain manufacturers, abolishing excessive dues and tolls along transport routes, and overhauling the tax system so as to remove the disincentive effect of the existing system. As far as the private investment is concerned, Quesnay foresaw that the problem might arise through insufficient saving. Therefore, it was incumbent upon the proprietors (the major source of saving) to refrain as much as possible from unnecessary consumption (Muller, 1978; Eltis, 1988).

In all accounts, Adam Smith's *The Wealth of Nations* embodied a penetrating analysis of the processes whereby economic wealth is produced and distributed. The central thesis of *The Wealth of Nations* is that capital is best employed for the production and distribution of wealth under conditions of governmental non-interference, or ''laissez passer-laissez faire'' economy, and free trade. In Smith's view, the production and exchange of goods can be stimulated, and a consequent rise in the general standard of living attained, only through the efficient operations of private industrial and commercial entrepreneurs acting with a minimum of regulation and control by governments (Smith, 2000).

Although this view of ''laissez passer-laissez faire'' economy has undergone considerable modification by economists in the light of historical developments since Smith's time, many sections of *The Wealth of Nations*, notably those relating to the sources of income and the nature of capital, have continued to form the basis for theoretical study in the field of political economy. *The Wealth of Nations* has also served, perhaps more than any other single work in its field, as a guide to the formulation of governmental economic policies (Persky, 1989). It was Smith's attempt to define the institutional structure which will best harmonize the individual's pursuit of

his selfish interests with the broader interests of society. The Smithian model is one of controlled freedom: freedom of behavior and choice exists only within the socially established norms of conduct. Self-love and self-interests go hand in hand with social control and socialization (Samuels, 1977, p. 196).

After the Great Depression, the main objectives of classical economists were to regain the stability of the market system and to redefine the steady-state conditions of EG within the parameters of industrially advanced societies. Struck by an unstable economic system after the Great Depression, Harrod (1939) and Domar (1946) attempted to integrate Keynesian analysis with elements of EG. They used the PF with little substitutability among the inputs to argue that the capitalist system is inherently unstable (Barro, 1999, p. 10). In pursuit of redefining economic stability, they each arrived by noticeably different routes at a classically simple answer: the national saving rate (s) has to be equal to the product of the capital-output ratio (v) and the rate of growth of the effective labor force (n); thus, they are compatible if and only if $s = vn$. Contrary to Harrod and Domar's expectations, their formula proved to be explosively unstable as a result of its simplicity and the rigidity of its assumptions (Deane, 1978, pp. 190–204; Solow, 1988, pp. x–xvi).

The advancement of the technological factor by Robert Solow (1957, 1988) opened up growth theory to a wider variety of real-world facts and a closer connection with general economic theory. Solow (1957, 1988) and Denison (1967, 1985) are credited for having developed the well-known neo-classical aggregate PF, which posits that EG is a function of changes in input of capital, effective labor force, and technology. An economy is growing at a "steady state," according to Solow (1988, p. 4), if "its output, employment, and capital stocks grow exponentially, and its capital to output ratio is constant." Thus, the growth of the output can be explained by the variations of capital and labor.

Later, it became a strong tradition to use the neo-classical PF approach in studying the defense-growth relationship (Heo, 1999, 2000; Sandler & Hartley, 1995; Heo & Mintz, 2002). Gershon Feder (1982) used this approach by dividing the aggregate economic output into export and non-export sectors. A number of studies have since followed Feder in exploring the relationship between exports and EG in which the GDP of a country is made as a function of the growth rates of different inputs such as labor, capital, and exports.

Following the logic of the neo-classical PF approach, Ram (1986) developed a two-sector growth (government and private sectors) model to

examine the relationship between government spending and EG. Ram suggested that the public and private sectors differ with respect to productivity. The two-sector PF framework outlined by Ram (1986) was adopted from the reasoning developed by Feder (1982, pp. 61–67). In several articles, Mintz and Huang (1990, 1991) and Huang and Mintz (1990, 1991) developed a three-equation model employing a neo-classical PF model to test the impact of defense spending, including externalities on EG in the United States. Mintz and Huang (1990, 1991) and Ward and Davis (1992) have tested not only the economic effects of military and non-military public expenditures on growth but also the externality effects of these expenditures.

The defense-growth PF model prior to Mueller and Atesoglu (1993a, 1993b) did not include the impact of technological change on EG. Mueller and Atesoglu (1993a, 1993b) included technological progress in their model, utilizing the concept of the *Hicks neutral technological change*, which basically means that changes in technology do not change the share of income going to the factors of production and the factor ratios. In other words, this concept will allow us to measure the effects of technological progress separately without affecting the contribution that labor and capital make to the growth (Heo, 1999). Heo and Mintz (2002) noticed that the defense-growth PF model can be benefited by including technology progress. The authors concurred with Solow (1988, p. 35), who suggested that technological progress is necessary for steady growth to be possible, and with Denison (1985), who contended that the advancement in technology provides a way to produce at lower cost. Thus, Heo and Mintz (2002) concluded that technological progress is the cornerstone for the persistent long-term growth of output per unit of input.

Furthermore, Heo and DeRouen (1998) suggested that Mueller and Atesoglu (1993a, 1993b) implicitly assumed that technological progress in the non-military public sector and technological progress in the non-military private sector are identical. Thus, Heo and DeRouen (1998) argued that it is theoretically more reasonable to separate the private and non-military government sectors while keeping technological change effects in the model. They claimed that this division of the sectors allows the economic effects of defense spending on growth to be measured more accurately.

Despite the vast number of studies on the defense-growth relationship, the political variables were absent from the defense-growth PF model. Heo and Mintz (2002) extended the PF model of Ram (1986), Mintz and Huang (1990), and Ward and Davis (1992) to include a political factor (political party) and tested this model using empirical data on the United States from 1948 to 1996. The augmented Heo–Mintz (H–M) defense-growth-political

PF model introduced a new research program which paved the way to explore the impact of other political factors on the growth and development of nations. I argue that the H–M contribution was the most important contribution to the PF since Solow incorporated the technological factor into it.

1.3. THE POLITICAL ECONOMY OF DEFENSE

The political economy of defense (PED) is a relatively new field in international political economy (IPE). The PED approach attempts to fill the gap that existed in the literature by incorporating defense spending variables into the PF to narrow the gap between its theoretical construct and the realistic forces of production.

Therefore, the PED added explanatory power to the theories that attempted to explain the dynamics of development and growth. Nevertheless, there is no consensus among scholars about the impact of defense spending upon EG. Some scholars, such as Emile Benoit (1978, p. 276), argued that the defense programs of most countries help EG, while others, such as Nicole Ball (1983), suggested that they do not always promote EG. While many studies had been conducted, a dominant theoretical framework has not emerged. Therefore, in his review article, Chan (1987, p. 35) wrote, "Even though we understand the processes through which military spending can affect economic performance much better now than a decade ago, there remains much that we do not know or that we disagree about." Despite Chan's pessimistic assessment, Mintz and Stevenson (1995, p. 637) observed that "the question of how defense spending affects economic growth has been important to both academicians and the policy community." Indeed, the evolution of literature on the PED demonstrates its fundamental contribution to understanding and explaining numerous problems that face the EG of developing nations.

1.4. COMBINING POLITICS AND ECONOMICS

John Maynard Keynes was the most prominent political economist who seriously expounded a systemic and fundamental change of the free market economy and openly adopted an active governmental role in it. Keynes initiated a revolution in the free market economy by suggesting that national economy should function within political determinants. The Keynesian