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The economic opportunity cost for countries located in crisis zones: Evidence from the Middle East

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ABSTRACT

Whether the Middle East is a blessed or damned region is a matter of perspective and evidence. This paper investigates the effect of regional instability on countries caught in such conflict solely because of their location. By use of an interrupted time series model, an unrestricted error correction model, and the incremental capital output ratio (ICOR), the indirect economic costs of regional unrest are estimated for Jordan, as an exemplar of Middle Eastern countries. Jordan has lost during 24 years of regional turmoil the equivalent of 40–72% of its 2012 gross domestic product (GDP), or US$12.6 billion to US$22.7 billion. Furthermore, it has lost US$2.3 billion of foreign direct investment (FDI) and its return, which are higher than the annual FDI inflows in most of the years covered by this study. This substantial loss is a warning sign that should be seriously considered by politicians and economists in the Middle East, especially for countries whose resources are already constrained.

1. Introduction

The misfortune of living in a politically unstable zone is usually borne by the majority of the population through endurance of the economic consequences. In theory, regional instability[1] disturbs not only the countries involved in the turbulence but also neighboring countries by discouraging saving and investment via a *negative incentive effect*, increasing military spending, and disrupting trade with other countries (Ades and Chua, 1997). The economic costs of regional conflict include not only direct cost but also indirect cost, or *opportunity cost*,[2] such as income lost due to reduced domestic and foreign investment, uncertainty, and inefficient resource allocation (Arunatilake et al., 2001). Foregone investment may be attributed to rising military expenditure (Deger, 1986; Arunatilake et al., 2001; Abu-Bader and Abu-Qarn, 2003) and hence military spending[3]

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[1] Regional instability refers to "political instability in neighboring countries" (Ades and Chua, 1997, p. 279).
[2] This opportunity cost is also referred to by Anderton and Carter (2001).
[3] Military expenditure may also enhance economic growth, by boosting aggregate demand via a *Keynesian effect* (Deger, 1986; Arunatilake et al., 2001; Abu-Bader and Abu-Qarn, 2003).

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Table 1
Country ranks of military expenditure (based on military expenditure as a percentage of GDP), 1990–2010.

Rank	1990	1995	2000	2005	2010
1	Kuwait	Oman	Saudi Arabia	Oman	Saudi Arabia
2	Oman	Kuwait	Oman	Saudi Arabia	Oman
3	Saudi Arabia	Saudi Arabia	Jordan	Djibouti	United Arab Emirates
4	Jordan	Syria		Syria	Jordan
5		Morocco		Yemen	
6		Lebanon		Jordan	
7		Yemen			
8		Djibouti			
9		Bahrain			
10		Jordan			

Source: World Development Indicators in the World Bank database.

may obstruct economic growth by crowding out investment (Deger, 1986; Arunatilake et al., 2001; Abu-Bader and Abu-Qarn, 2003) or by deterring savings and resource creation (Deger, 1986).

The relationship flow from military spending to investment to economic growth is well documented. On one hand, the crowding-out effect of military spending has been supported by Chen et al. (2014) and Arunatilake et al. (2001). On the other hand, evidence that investment – whether domestic investment or foreign direct investment (FDI)[4] – has a positive effect on an economy has been confirmed by a number of authors, including Omri and Kahouli (in press), Gupta et al. (2014), Li and Liu (2005), Alfaro et al. (2004), Borensztein et al. (1998), and Levine and Renelt (1992). Furthermore, many studies (e.g., Abu-Bader and Abu-Qarn, 2003; Aizenman and Glick, 2006; Deger, 1986) have provided proof of the negative effect of military expenditure on economic growth.

The current economic and political situation in the Middle East is far from stable. The Arab countries have been jolted by the *Arab Spring*, a significant regional turmoil that started in Tunisia in December 2010 and toppled ruling regimes in a number of countries and left other ruling regimes, such as those of Jordan and Morocco, facing growing pressure to take counteractive actions (Campante and Chor, 2012). Indeed, the economic conditions in Jordan have been considerably affected by the political events in the neighboring countries,[5] as evidenced, at the very least, by the acknowledged disruption in FDI inflows to Jordan (the Organization for Economic Co-operation and Development (OECD), 2013). However, like many others Middle East countries, Jordan is no stranger to regional instability: It has suffered economic consequences previously, including during the Gulf War (1990–1991), in the form of decreased gross domestic product (GDP), lost tourism, and decreased exports and remittances as many Jordanians returned from Gulf countries (Ades and Chua, 1997). During the past decade, Jordan has experienced a substantial surge in its military expenditure, with the 2012 expenditure reaching about 2.7 times its 2000 level, according to data from the World Bank's World Development Indicators. Furthermore, in 2013 Jordan was among the world's top 10 militarized countries, based on the Global Militarization Index (GMI), and the Middle East was the world's top militarized region (Bonn International Center for Conversion, 2013)[6,7].

Taking the analysis from previous authors as an indication that outsized military expenditure can result in second-order effect resource misallocation. In addition to this perverse outcomes, it can also act as a deterrent to external foreign investment since this militarization implies a present or future potential for domestic or geopolitical instability, disrupting the free flow of capital and supply chains. This paper attempts to investigate the effect of the regional political unrest on Jordan's economy as an exemplar of countries in the Middle East. We quantify in monetary terms, the FDI inflows and economic growth that are lost as a result of regional instability and increased military spending. What makes Jordan an interesting case to study is that it has been among the top-ranked developing Middle East and North Africa (MENA) countries in terms of military spending as a percentage of GDP (Table 1). To the best of the authors' knowledge, this study is the first to attempt to estimate the investment opportunity cost, in monetary value, of the regional instability in the Middle East. The remainder of this paper is organized as follows: Section 2 reviews the relevant literature, Section 3 presents the data and describes the methodology, Section 4 reports the results and discusses them, and Section 5 summarizes the conclusions.

[4] FDI enhances growth through a number of vehicles, including technology, infrastructure, human capital, and production inputs (Li and Liu, 2005). See Li and Liu (2005) for a review of the related literature.

[5] Furthermore, the consequences of the financial crisis in the Gulf Cooperation Council (GCC) countries have added insult to injury for Jordan's economy (OECD, 2013).

[6] According to this report, the Bonn International Center for Conversion (BICC) is conducting a study in cooperation with a number of researchers, in Jordan as well as other countries, to investigate how military behavior has been affected by the economic conditions and other conditions resulting from the Arab Spring. For a ranking of GMI during 1990–2012, see Bonn International Center for Conversion, Global Militarization Index, http://gmi.bicc.de/index.php?page=ranking-table&year=2012&sort=rank_asc (last accessed on 16.8.14).

[7] In part, the high militarization of the Middle East can be attributed to the Israeli–Arab conflict (Abu-Bader and Abu-Qarn, 2003).