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Economics of Terrorism

Poverty, Political Freedom, and the Roots of Terrorism

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1 Introduction

Terrorism has become a phenomenon of increasingly great concern to the world ever since its observed transformation to overreach the boundary of a single country in the 1960s. Since that time, in examining the development of terrorism, Alexander, et al. (1979) propose an approach that combines three points of view. The traditional analytical method considers terrorism from known capabilities to possible intentions. It focuses on several areas, including the increasingly transnational aspects of terrorism, the groups and their capabilities, linkages, motivations, and targets. The speculative prospective follows the opposite direction, beginning with optimum terrorist targets before looking into future terrorist motivation, capabilities, and possible structure of their groups. The third one is the crisis management viewpoint.

From the above approach, the authors conclude that "the roots of modern terrorism appear to lie largely in the rising tide of student and radical unrest so evident in most nations of the world… and the dissatisfaction with then extant political establishments." The scope of terrorist group activities broadened significantly in the late 1960s to across national boundaries, even very far away from the terrorists' homelands. These initially small but highly professional and disciplined groups have quickly taken advantages of the mobility brought about by expanding international transportation and communication system. The lack of an international agreement in the battle against terrorism and the favorable conditions in the "safe-haven" states further allow terrorists to develop their operations and increasingly diverse techniques. These include aircraft hijacking, assassination, hostage, and (suicide) bombing. Their evolution has apparently been more and more unpredictable with regard to the place, time, reason and objective of a terrorist event that once happens often resembles a horror to the whole world.

Since the 1980s, there is the increasingly scholarly consensus holds that the roots of lie in the wider circumstances in which terrorists live and act (Cottee, 2015). This is “socially determined” situation where deeper historical, economic, or cultural forces have a huge influence on the individual. Bandura (2002) even conclude that under certain social conditions, even “ordinary people can be led to do extraordinarily cruel things.” In other words, individuals would try to reflect on their own possible shortcomings and vulnerabilities.

2 Poverty, political freedom and terrorism

In order to partly answer the above problems, it is important to analyze the roots of terrorism during its development. This paper will focus on poverty and political freedom as perceived two important causes that contribute to this phenomenon. Before that, let us follow the above-mentioned structure to better understand the relationship.

Terrorist capabilities

For both national and transnational terrorist groups, training through shared instruction is crucial to their development and helps to hold together many of their elements. In a very real sense, these terrorists studied with the same faculty and are graduates of the same academy where they learn the basic skills, get familiar with the sophisticated organizational structure and practice. Besides, the similarity in social, political, and philosophical backgrounds of these individuals also helps them to better communicate among themselves. Then there is the gap between a terrorist group's desired capabilities and its actual skills and resources so that it can pursue the "mass disruption" and "mass destruction." This gap is not clear because tremendous expertise and large amounts of material or manpower are not required and terrorists' operational creativity is supported more by our technological advances and rising reliance on sophisticated systems.

Terrorist motivation

Some of the most common motivational categories of terrorist groups are separatist, ethnocentric, nationalistic, and revolutionary (US Army Training and Doctrine Command, 2007).

Separatist terrorist groups search for the separation of existing entities through independence, political autonomy, or religious freedom or domination in the name of social justice or equity, anti-imperialism, as well as the resistance to conquest or occupation by a foreign power. This is especially true in most notably, in the post-9/11 era and the 2003 US invasion of Iraq.

Ethnocentric terrorist groups are more activated by the idea of race as the defining characteristic of a society and a basis of cohesion. Following this, their members act in the way that a particular group is superior in the nature of its ethnic or racial characteristics.

Nationalistic and revolutionary terrorist groups aim to sustain their culture and interests and are willing to defend them at all costs. They even envision to establish a new nation or to separate an existing state to be a part of another nation that shares their perceived national identity, or to overthrow an established order for a new political or social structure.

Terrorist targets

Alexander, et al. (1979) point out that most terrorist groups share the same general political goals: to destroy a government, alter a policy or law, oust a foreign power or economically dominant class. Such a change could have a direct impact on the nature and degree of terrorist violence, assuming that a constituency acts as a moderating influence on the type, targets, and level of violence in terrorist operations. Such may be the rationale for choosing facilities rather than people as targets in certain instances.

Poverty has long been considered the cause of numerous serious global problems in the world, including one of the most daunting challenges, terrorism. This is a widespread consensus among

world political leaders, especially after the 11/9 event when it become more apparent that the security of rich nations is more dependent on helping the poor than ever (Kahn and Weiner, 2002). Because economic uncertainty even implies a higher possibility of political coups or civil fighting (Collier and Hoeffler, 2004; Kahn and Weiner, 2002), it also has a lot to do with terrorism as a manifestation of political conflict (Abadie, 2004). Abadie (2004) also points out that there is certain differences in the impact of economic variables on the determinants of domestic and international terrorism.

The geographical and economic distribution of terrorist sources and targets is also a topic of great concern to scholars who seek to track the roots and development of terrorism. Enders and Sandler (2006), based on their empirical analysis of income transference, predict that attacks are to be displaced from high-income countries to low-income countries when enhanced security measures are put in place to make attacks more difficult and costly for terrorists to accomplish in the formers. Cross-national studies of terrorism might help to examine the effect of national economic conditions on terrorism base on both supply-side factors and demand-side factors. As a result, Krueger and Laitin (2008) find that richer nations are more likely to be targets, while politically repressed and poorer nations are often the sources of transnational terrorism.

This paper is based on the dataset on the intensity of country-level terrorist risk to study linkages between terrorism and economic and political variables by Abadie (2004) and especially on the analysis of “domestic” and “transnational” terrorism Bandyopadhyay and Younas (2011).

Table 1, provided by Bandyopadhyay and Younas (2011) from the data source by RAND-MIPT Terrorism Incident Database (2008), present the overview picture of terrorist attacks in the world between 1998 and 2007. There is a distinction between domestic and transnational terrorist incidents and between the incidents for 24 OECD countries and 125 developing countries.

Domestic terrorism accounts for a large number of total attacks in both groups of countries, especially in the developing ones. Besides, there are two opposite trends in the annual number of events in developing countries and the OECD. While there is a sharp rise in the total number of terrorist attacks in developing countries during the period 2002-2006, the number for the OECD countries tends to decrease. This can be the result of enforcement against terrorism in developed countries.

The dependent variables (the number of total, domestic and transnational incidents of terrorism) are explained by various independent variables, notably poverty (based on the data on country income constant at 2000 USD by World Bank (2009); infant mortality rate to measure the extent of deprivation and physical suffering; population density; “political freedom” from Freedom House’s Political Rights Index (CIRI, 2009).

The “rule of law” index compiled by (Kaufmann, et al., 2008) is also included to control for quality of institutions with scores ranging from −2.5 to 2.5 to show the strength of a legal system. Ethnic, linguistic, and religious fractionalization has values range between 0 and 1 while geographic variables is also examined.

Table 1
Numbers of terrorism incidents.

Year	125 developing countries			24 OECD countries		
	Total terrorism	Domestic terrorism	Trans. terrorism	Total terrorism	Domestic terrorism	Trans. terrorism
1998	745	641	104	236	205	31
1999	640	587	53	382	323	59
2000	547	491	56	340	303	37
2001	692	545	147	402	381	21
2002	1229	1022	207	269	244	25
2003	871	695	176	304	263	41
2004	1019	911	108	201	176	25
2005	1630	1533	97	200	180	20
2006	2219	2084	135	152	137	15
2007	708	626	82	50	45	5

Data source: RAND-MIPT Terrorism Incident Database (2008).

Because there are different types of terrorism, the regressions of total, domestic and transnational terrorist incidents are estimated separately. The results are presented in table 2. Political freedom has a significantly non-linear effect on domestic terrorism while both income and literacy are not statistically significant. “Rule of law” even shows a significant negative relation. The fractionalization variables (ethnic, linguistic, and religious) illustrate the greater likelihood of domestic terrorism among ethnically diverse societies than among religiously fractionalized ones. Political freedom does not greatly affect transnational terrorism. For transnational terrorism, income is more significant.

As a robustness exercise, electoral self-determination variable is utilized as an alternative measure of democracy. It further strengthens the above conclusion regarding political freedom. Geographic landlock is used to address the endogeneity problems that might rise regarding income and the result is that landlock affects terrorism only through its exogenous impact on national income.

3 Conclusion

The results in the regression model designed by Bandyopadhyay and Younas (2011) and (Abadie, 2004) show that there is a non-linear relationship between terrorism and political freedom but only clear in domestic terrorism. Geography, fractionalization and “rule of law” are important factors that determine the sources and potential of terrorist groups.

Table 2
Terrorism and country characteristics in developing countries (Negative Binomial regressions with robust standard errors clustered over countries).

Dependent variable→ Independent variables↓	Total terr. (1)	Dom. terr. (2)	Trans. terr. (3)	Total terr. (4)	Dom. terr. (5)	Trans. terr. (6)
Ln (GDP per capita)	0.614	0.586	0.769***	0.641*	0.608*	0.783***
	(1.66)	(1.51)	(2.65)	(1.93)	(1.75)	(2.84)
Political freedom	0.697**	0.865**	0.247			
	(2.04)	(2.29)	(0.77)			
(Political freedom)^2	−0.080*	−0.097**	−0.023			
	(1.77)	(1.98)	(0.55)			
Electoral self-determination				1.550***	2.324***	0.694
				(3.46)	(4.59)	(1.50)
(Electoral self-determination)^2				−0.522***	−0.787***	−0.261
				(2.87)	(3.69)	(1.35)
Ln (Adult literacy)	0.250	0.475	−0.374	0.960	1.132	0.325
	(0.36)	(0.61)	(0.66)	(1.22)	(1.35)	(0.55)
Ln (Infant mortality)	−1.356***	−1.353***	−1.095**	−1.099**	−1.023**	−1.032**
	(2.85)	(2.75)	(2.56)	(2.47)	(2.30)	(2.43)
Ln (Population density)	1.035***	1.201***	0.658***	1.013***	1.160***	0.657***
	(4.53)	(4.60)	(4.20)	(4.61)	(4.63)	(3.90)
Rule of law	−2.049***	−2.190***	−2.035***	−1.940***	−2.028***	−1.984***
	(6.41)	(5.99)	(6.34)	(5.83)	(5.60)	(5.56)
Ethnic fractionalization	1.730*	1.924*	1.163	1.904**	2.164**	1.170
	(1.91)	(1.90)	(1.51)	(2.28)	(2.30)	(1.52)
Linguistic fractionalization	0.303	−0.001	1.334*	0.528	0.388	1.491*
	(0.41)	(0.01)	(1.89)	(0.73)	(0.49)	(1.88)
Religious fractionalization	−2.486**	−2.636*	−1.892**	−2.590**	−2.952**	−2.041***
	(1.98)	(1.96)	(2.54)	(2.03)	(2.08)	(2.73)
Ln (Country area)	0.599***	0.687***	0.321***	0.583***	0.647***	0.324***
	(4.96)	(4.75)	(3.21)	(4.69)	(4.58)	(3.09)
Ln (Elevation)	0.464**	0.532**	0.548**	0.490**	0.560**	0.541***
	(2.12)	(2.08)	(2.78)	(2.50)	(2.31)	(2.93)
Tropical area (fraction)	−1.003	−1.320	−0.876	−0.612	−0.844	−0.813
	(1.35)	(1.59)	(1.55)	(0.80)	(0.97)	(1.47)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Regional dummies	Yes	Yes	Yes	Yes	Yes	Yes
Vuong test [ZINB vs. NB]	$z = 0.52$	$z = 0.33$	$z = 1.17$	$z = 0.10$	$z = 0.36$	$z = 0.38$
Over-dispersion parameter	3.538	4.104	3.040	3.346	3.767	2.907
Log pseudo-likelihood	−1992.24	−1749.97	−961.07	−1911.73	−1681.94	−904.85
No of observations	1159	1159	1159	1125	1125	1125

Note: Robust absolute z-statistics, adjusted over countries, are shown in parentheses.
* Significance level at 10%.
** Significance level at 5%.
*** Significance level at 1%.

Source: Bandyopadhyay and Younas (2011)

Table 3
Terrorism and country characteristics in developing countries (IV regressions with robust standard errors clustered over countries).

Dependent variable→ Independent variables↓	Total terr. (1)	Dom. terr. (2)	Trans. terr. (3)	Total terr. (4)	Dom. terr. (5)	Trans. terr. (6)
Ln (GDP per capita)	0.972	1.032	0.844	0.209	−0.052	0.839
	(0.91)	(0.84)	(0.95)	(0.19)	(0.04)	(0.84)
Political freedom	0.683*	0.838**	0.142			
	(1.87)	(2.06)	(0.41)			
(Political freedom)^2	−0.077	−0.094*	−0.007			
	(1.64)	(1.78)	(0.17)			
Electoral self-determination				1.421***	2.267***	0.558
				(2.95)	(4.15)	(1.11)
(Electoral self-determination)^2				−0.460**	−0.751***	−0.206
				(2.40)	(3.35)	(0.99)
Ln (Adult literacy)	0.126	0.302	−0.381	1.368	1.688	0.321
	(0.14)	(0.29)	(0.51)	(1.33)	(1.51)	(0.38)
Ln (Infant mortality)	−1.127	−1.043	−1.067	−1.521	−1.599	−1.058
	(1.27)	(1.06)	(1.39)	(1.60)	(1.53)	(1.22)
Ln (Population density)	1.075***	1.275***	0.653***	0.933***	1.069***	0.640***
	(4.23)	(4.37)	(3.17)	(3.72)	(3.73)	(2.78)
Rule of law	−2.183***	−2.325***	−2.122***	−1.941***	−1.952***	−2.046***
	(5.66)	(5.23)	(5.87)	(4.84)	(4.38)	(5.11)
Ethnic fractionalization	1.829**	2.091**	1.352	1.782**	2.006**	1.306
	(2.03)	(2.09)	(1.67)	(2.13)	(2.08)	(1.52)
Linguistic fractionalization	0.266	−0.015	1.228*	0.528	0.403	1.381*
	(0.37)	(0.02)	(1.75)	(0.74)	(0.52)	(1.73)
Religious fractionalization	−2.190*	−2.423*	−1.534**	−2.037*	−2.316	−1.712**
	(1.93)	(1.87)	(2.02)	(1.72)	(1.66)	(2.19)
Ln (Country area)	0.603***	0.688***	0.345***	0.604***	0.680***	0.341***
	(4.68)	(4.37)	(3.39)	(4.45)	(4.15)	(3.19)
Ln (Elevation)	0.510**	0.598**	0.544**	0.418*	0.463*	0.536**
	(2.07)	(2.10)	(2.54)	(1.84)	(1.73)	(2.55)
Tropical area (fraction)	−0.819	−1.163	−0.859	−0.770	−1.157	−0.817
	(0.88)	(1.10)	(1.14)	(0.76)	(1.02)	(1.02)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Regional dummies	Yes	Yes	Yes	Yes	Yes	Yes
Vuong test [ZINB vs. NB]	$z = 0.31$	$z = 0.19$	$z = 1.53$	$z = 0.43$	$z = 0.58$	$z = 0.84$
Over-dispersion parameter	3.672	4.237	3.338	3.503	3.898	3.224
Log pseudo-likelihood	−1997.14	−1753.10	−969.29	−1918.92	−1687.12	−913.66
No of observations	1159	1159	1159	1125	1125	1125

Note: Robust absolute z-statistics, adjusted over countries, are shown in parentheses.
* Significance level at 10%.
** Significance level at 5%.
*** Significance level at 1%.

Source: Bandyopadhyay and Younas (2011)

Table 4
Terrorism and country characteristics in developing countries (IV fixed effects Negative Binomial regressions).

Dependent variable→ Independent variables↓	Total terr. (1)	Dom. terr. (2)	Trans. terr. (3)	Total terr. (4)	Dom. terr. (5)	Trans. terr. (6)
Ln (GDP per capita)	0.284	0.060	2.183	0.167	0.386	2.259
	(0.25)	(0.05)	(1.14)	(0.14)	(0.31)	(1.09)
Political freedom	0.431*	0.651***	−0.136			
	(1.97)	(2.61)	(0.44)			
(Political freedom)^2	−0.061**	−0.087***	0.007			
	(2.24)	(2.78)	(0.18)			
Electoral self-determination				0.222	0.684**	−0.392
				(0.83)	(2.25)	(1.06)
(Electoral self-determination)^2				−0.097	−0.244*	0.089
				(0.84)	(1.94)	(0.54)
Ln (Adult literacy)	1.032*	1.148*	0.458	0.908	1.392**	0.270
	(1.87)	(1.88)	(0.56)	(1.59)	(2.24)	(0.30)
Ln (Infant mortality)	−0.165	−0.037	−0.340	−1.223	0.240	−0.210
	(0.46)	(0.10)	(0.66)	(0.32)	(0.59)	(0.37)
Ln (Population density)	0.374	0.214	1.916	0.251	0.462	2.240
	(0.47)	(0.25)	(1.43)	(0.25)	(0.43)	(1.26)
Rule of law	−0.916***	−0.916***	−1.764***	−1.032***	−1.190***	−1.705***
	(3.13)	(2.84)	(3.54)	(3.76)	(4.03)	(3.56)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Log pseudo-likelihood	−1293.19	−1111.71	−578.34	−1264.94	−1093.76	−554.63
No. of observations	888	780	719	865	775	696

Note: Absolute z-statistics are shown in parentheses.
* Significance level at 10%.
** Significance level at 5%.
*** Significance level at 1%.

Source: Bandyopadhyay and Younas (2011)

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