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A contest theory perspective
and empirical evidence
in the period 2002-2010**

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V&P VITA E PENSIERO

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Abstract

We interpret the emergence of Jihadist terrorism in the light of contest theory. Al Qaeda may be portrayed as a contest organizer, providing a ‘prize’ to the best terrorist group. Each group maximizes its probability of winning by launching attacks more destructive than previous ones perpetrated by competing groups. This hypothesis is confirmed by the empirical analysis which shows that the number of victims of terrorist attacks increases compared to number of victims of previous attacks in the same country. An upward trend in terrorist brutality is the outcome of competition between groups. Results also show that Al Qaeda-style terrorism is associated with poverty and underprivileged socio-economic conditions.

JEL:D74, Z00

Key words:terrorism, contest, negative binomial regression

1. Introduction

Terrorism has become a topic of growing interest for social scientists. Sandler et al. (1983:37) define terrorism as the “*premeditated, threatened or actual use of force or violence to attain a political goal through fear, coercion, or intimidation.*”¹ Among economic studies on terrorism, a prevailing approach is based on the concept of opportunity cost according to which better economic conditions reduce terrorism. Another approach focuses on the ‘productivity’ of terrorists and highlights that terrorism is positively associated with education. In this article, Al Qaeda-style terrorism is interpreted as employing contest theory. Al Qaeda may be portrayed as a contest organizer, providing a prize to the best terrorist group. That is, our paper focuses on the ‘Global Jihadism’ that emerged after the September 11th. In such a scenario, Jihadist groups may not be formally part of Al Qaeda, but they share its visions and strategies.² Moreover, terrorist groups are supposed to compete with each other. They play a non-cooperative game and maximize their efforts in order to win a ‘prize’ provided by Al Qaeda. Each group observes the results of previous attacks perpetrated by other groups. Consequently, each group maximizes its efforts by launching attacks more destructive. This hypothesis is confirmed by our empirical analysis that shows an upward trend in terrorist brutality. This is in line with Enders and Sandler (2000) that demonstrate how fundamentalists are perpetrating fewer, but more violent attacks³. It also goes back to the idea of “reinforcement” expounded by Midlarsky et al. (1980). Similar explanations have been provided by Bloom (2004) with regard to suicide bombing by Palestinian militants and by Della Porta (1995), with regard to the competition between terrorist groups in Italy in 1970s.

¹On terrorism since World War II see Sandler and Enders (2004). For a survey of the literature, see Krieger and Meierrieks (2010). On terrorism in Europe, see Caruso and Schneider (2011).

²See Rabasa et al. (2006) and Napoleoni (2005).

³Barros et al. (2006) find a positive association between the value of property damage and the peacetime duration in the case of ETA. No reinforcement mechanism emerges.

In the empirical application, the dependent variable is the number of victims (as proxy of terrorist brutality) and the hypothesis from contest theory would be an upward trend in the number of victims. Results confirm this hypothesis. In addition, results show that terrorist brutality is associated with underprivileged socio-economic conditions. The number of victims is a fundamental component to measure the social impact of terrorism (Prieto-rodriguez et al. 2009).

Our paper is structured as follows: In Section 2 we present some related literature. Section 3 develops the theoretical argument. Section 4 presents the empirical application. Section 5 presents some policy implications descending from the empirical findings. Section 6 summarizes and concludes.

2. Related empirical studies

A first line of research analyzed the economic determinants of terrorism by referring to the concept of *opportunity cost*. The larger the set of economic opportunities, the lower is the willingness for individuals to be involved in terrorist activities. A second argument, a *productivity argument*, stresses the positive relationship between education and terrorism. That is, better educated individuals would become more productive, say bloodier and more brutal, terrorists. Since education and literacy levels are low in poor countries the productivity argument is thought to “overrule” the opportunity-cost argument. The two arguments are not necessarily on diametric opposites; indeed, they can complement each other. The opportunity-cost argument might determine the ‘*why*’, whereas the productivity argument might determine the ‘*how*’. Krueger and Maleckova (2003) show that the level of education is positively associated with the likelihood of becoming a Hezbollah militant. They also find that terrorists are more likely to originate from larger countries and from low-income countries. Blomberg et al. (2004) show that likelihood of terrorism increases in periods of economic decline. Piazza (2006) does not find any significant relationship between economic development and incidence of terrorism. Abadie (2006) finds that an increase in per capita GDP is associated with a reduction of terrorism. Barros et al.

(2008) find that there is a positive association between poverty and terrorism against US citizens in Africa. Burgoon (2006) shows that social-welfare spending is negatively and significantly associated with terrorism. Freytag et al. (2011) present mixed results either confirming or contrasting the idea that terrorism is negatively associated with better economic conditions. The impact of GDP per capita on terrorism is non-linear. There is a significant threshold of development. As long as this threshold is not surpassed, better economic performance encourages terrorism. When the threshold is passed, the usual interpretation of opportunity costs holds. Other scholars emphasize the role of grievances in the context of civil liberties deprivation. Li (2005) shows that democracy and terrorism are negatively associated. Drakos and Gofas (2006) show that the incidence of terrorism is positively associated with democracy, the reason being that democracies protect the freedom of press so ensuring accurate reporting of terrorism-related news. Kurrild-Klitgaard et al. (2006) show the nonlinearities in the relationship between democracy and terrorism. Countries at an intermediate level of democracy are likely to experience higher levels of terrorism. Berrebi (2007) and Benmelech and Berrebi (2007) show that both higher education and standard of living are positively associated with the incidence of suicide attacks in Israel. Gupta and Mundra (2005) show that Palestinian suicide attacks are the outcome of a competition between Palestinian groups. Sayre (2009) finds a positive relationship between Palestinian suicide bombings and the declining labor market conditions. Fielding and Shortland (2010), study the Islamist violence in Egypt and find that as the price of bread increases, the number of Egyptian civilians killed by other civilians also increases, as does the number of security forces casualties.

3. A Contest Theory Perspective on Al Qaeda

Our paper interprets Al Qaeda-style terrorist activities, employing the contest theory. A contest is a game in which rational agents com-

pete for a prize by making irreversible outlays⁴. Examples of contests can be drawn from sport, managerial competition and political competition among others. Al Qaeda may be portrayed as a contest organizer providing a prize to the best terrorist group. The prize might be an “honorary membership”, or an “economic reward”. In particular, Al Qaeda may start a competition among different terrorist groups which are only loosely linked to the terrorist network. These groups compete with each other as they were in a contest. The result of this competition is an upward trend in brutality. Evidently, this creates a favorable condition for Al Qaeda that actually increases the level of terror. This also constitutes a flexible recruitment system. New groups are involved in the organization, as a result of the selection process among volunteers. The rise of the so-called “self starters” is taken as evidence of this, i.e., groups with little or no affiliation with the network perpetrating terrorist attacks on their own initiative (Kirby 2007; Sageman 2008). According to Rabasa et al. (2006) this is evident in North Africa, South Asia and in the Horn of Africa. Evidence on the attacks in Istanbul (November 2003), Madrid (March 2004), and London (twice in July 2005) seems to confirm the emergence of such a phenomenon in Europe.

The level of individual effort and the aggregate effort are the variables of interest of the contest literature. In our context, individual effort determines the brutality of terrorist attacks whereas the aggregate effort determines the level of terror spread within countries. In contest theory, the level of the effort exerted by each agent is correlated to the value of the ‘prize’ – i.e., the higher the evaluation of the ‘prize’, the higher the effort exerted. The probability of winning the prize for each agent increases in its own effort and decreasing in other agents’ efforts. Therefore, the only feasible strategy is expending the maximum possible effort. Finally, aggregate effort is maximized. If there is no asymmetry in the evaluation of the prize, agents would exert the same level of effort. In such a case, the outcome of the contest will be determined – all else being equal – by individual abilities. Asymmetric evaluations lead to different levels of effort exerted by

⁴The most comprehensive study on contest theory is Konrad (2009).

contestants. Nti (1999) show how high-evaluation agents exert a bigger effort than low-evaluation participants. Hillman and Riley (1989) show that asymmetric evaluation deters participation by low-evaluation agents, even if they have superior abilities. In general, aggregate effort is smaller when agents evaluate differently the prize. Moreover, as the number of agents increases, individual effort will decrease. The higher the number of agents, the lower is the probability for each agent to win the prize. This reduces aggregate effort. When participants do not know the number of contestants, this uncertainty increases the aggregate effort (Muenster, 2006). These predictions hold when only one prize is provided by the contest organizer (Konrad 2009:91). In general, the contest organizer can increase aggregate effort by providing different prizes. Moldovanu and Sela (2001) show that in the presence of convex cost functions, different prizes may constitute an optimal design. Even if agents are aware that they cannot win the first prize, they are willing to expend the maximum effort to get the other prizes. This increases aggregate effort.

In our context, let us assume that each terrorist group observes the results of some previous attacks in the same country. To maximize its own probability of winning the prize, each group maximizes its effort and tries to make attacks more destructive than the previous attacks perpetrated by competing groups. That is, the contest is sequential, namely a tournament. This does not affect the general properties outlined above. In the presence of costless information Dixit (1987) points out that there is no difference between contests and tournaments. In our context information may be assumed to be costless. In fact, when a terrorist group bombs an embassy or a trade center with dozens of casualties, somewhere in the world, the event is extensively covered by international mass media.⁵

⁵The media can minimize the cost of information. Rohner and Frey (2007) demonstrated empirically that media attention and terrorism do mutually Granger-cause each other.

4. Testable hypothesis and empirical results

On the basis of the theoretical insights presented above, our hypothesis is: “The number of victims of Jihadist attacks is increasing compared to the number of victims of previous attacks in the same country, *ceteris paribus*”. An upward trend in the number of victims would corroborate the basic hypothesis. In addition, we test whether there is any evidence to support either the opportunity cost argument or the productivity argument. In our empirical specification, the dependent variable is the number of victims of terrorist attacks. It is computed as the sum of killed and wounded people. The main explanatory variable is the lagged value of the dependent variable, say the number of victims of previous terrorist attack in the same country.

We apply a negative binomial panel data model for the period 2002-2010. Data on terrorist incidents are from the Global Terrorism Database (GTD).⁶ Each record reports the characteristics of the incident, so it was possible create the dummy variables fitting with Al Qaeda’s *modus operandi*: 1) an Islamist extremist group as perpetrator; 2) the use of explosive devices; 3) the choice of civilian targets as tourists and private businesses. These criteria have been drawn from the ‘Manchester Manual’, found by British police and considered a handbook for Jihad⁷. The dataset includes 79 countries which experienced some terrorist activity (more than five incidents) in the period 2002-2010 and 23,869 incidents (see the appendix).

The negative binomial regression is the model used to deal with event-count data exhibiting over-dispersion. The panel models for count data have been introduced in Hausman et al. (1984) and developed in Cameron and Trivedi (1986; 1998). Let y_{it} be the nonnegative dependent-count variable for country i at time t . When y_{it} follows a negative binomial distribution, following Hausman et al. (1984), the mass function can be written as:

⁶The dataset is at <http://www.start.umd.edu/gtd/> (March 2012).

⁷The Manchester Manual is at www.usdoj.gov/ag/manualpart1_1.pdf (April 2012).

$$f(y_{it}|\lambda_{it}, v_i) = \frac{\Gamma(y_{it} + \lambda_{it})}{\Gamma(y_{it} + 1)\Gamma(\lambda_{it})} \left(\frac{v_i}{v_i + 1}\right)^{y_{it}} \left(\frac{1}{v_i + 1}\right)^{\lambda_{it}}$$

The dispersion parameter v_i is assumed to be constant, over time for each individual i , while λ_{it} depends on explanatory variables. Eventually, $\Gamma(\cdot)$ is the gamma function. The mean and the variance are given, respectively, by

$$E[y_{it}] = v_i \lambda_{it} = v_i e^{X_{it}\beta}, \text{VAR}[y_{it}] = v_i(1 + v_i)e^{X_{it}\beta}$$

where β is a vector of unknown parameters and X_{it} is a set of explanatory variables. Following Cameron and Trivedi (1998: ch.7), Brandt et al. (2000) and Brandt and Williams (2001), the event-count dependent variable would be associated with its lagged value, so as to determine a trend. Therefore we can specify the conditional mean as:

$$E[y_t | y_{t-1}, X_{it}] = v_i \lambda_{it} = v_i \exp(\beta X_{it} + \rho y_{it-1}) \quad \text{with} \\ \rho > 0.$$

As noted above, the dependent variable y_{it} is the aggregate number of killed and wounded people in terrorist attacks. The dependent variable y_{it} varies across countries ($i = 1, 2, \dots, 80$), and is indexed by time (t). In particular, the time of incident is an exact date. Incidents are ordered by date. Henceforth, we refer to the dependent variable as ‘victims’. The lagged event count (y_{t-1}) is the number of victims of the previous terrorist attack in the same country. We refer to it as ‘pastvict’. Since it is uncertain what the time interval between attacks is, we consider first only the number of victims of the previous incident, whatever the interval between the two attacks. Eventually, we consider the number of victims in the previous incident if, and only if, it took place within a period of two or three months before. As covariates we consider GDP per capita and the rate of change of consumer price index (CPI). In order to avoid endogeneity problems,

these covariates are lagged one year. The institutional regime has been captured through the polity index and it ranges from -10 (very autocratic) to $+10$ (very democratic). Only in the case of foreign interruption the polity index takes the value of -66 . The Education index is from UNDP and it is bounded between 0 and 1.

Table 3- Variables, Descriptive Statistics and Sources

	Source	Obs.	Mean	Std. Dev.	Min	Max
Victims	GTD	23869	7.719	28405	0	1834
PastVict	GTD	23791	7.728	28442	0	1834
Penn World						
GDP per capita (logged)	Tables	23760	8.173	.8907	5.908	10.759
Polity	Polity IV Project	23842	-20.983	34.482	-66	10
Education Index (logged)	UNDP	23507	-.7307	.2975	-1.931	-.004
CPI change (logged)	IMF, WEO	20606	2.083	.965	-2.919	5.028
Bombing (dummy)		23886	.5306	.4991	0	1
Civilian (dummy)		23886	.4331	.4955	0	1
Islamist (dummy)		23886	.1966	.3975	0	1
Interaction		23875	.0397	.1953	0	1

Table 4 - Correlation Matrix

	victims	pastvict	bombing	civilian	Islamist	Interaction	education (logged)	GDP per capita (logged)	CPI change (logged)
victims	1.000								
Pastvict	.1257	1.0000							
Bombing	.1076	.0474	1.000						

Civilian	.0203	-.0024	-0.0100	1.000					
Islamist	.0482	.0071	-.0179	-.0319	1.000				
Interaction education (logged)	.0876	.0379	.1930	.2287	.4102	1.000			
GDP per capita (logged)	-.0223	-.0229	.0413	.0470	-.1129	.0312	1.000		
CPI change (logged)	.0581	.0568	.0454	-.1019	-.0459	-.0542	-.2643	-.2685	1.0000

**Table 5 – Dependent Variable: Victims by Event
(Panel Negative Binomial Regression)**

	FE	FE	FE	RE	RE	RE
	1	2	3	4	5	6
Pastvict	.0013*** (.000)	.0013*** (.000)	.0012*** (.000)	.0013*** (.0001)	.0013*** (.0001)	.0012*** (.0001)
Bombing (dummy)	.1045*** (.0157)	.12*** (.0158)	.0794*** (.0172)	.1037*** (.0157)	.1192*** (.0158)	.0789*** (.0172)
Civilian (dummy)	.0359*** (.0160)	.0338*** (.0160)	.0264 (.0174)	.0352*** (.016)	.033** (.160)	.0253 (.0173)
Islamist(dummy)	.14*** (.0215)	.105** (.0217)	.135*** (.0237)	.1409*** (.0215)	.1045*** (.0217)	.1349*** (.0234)
Interaction (bomb- ing*civilian*Islamist)	.12*** (.0432)	.1443*** (.0431)	.1619*** (.0469)	.1225*** (.0431)	.1492*** (.431)	.1684*** (.0468)
Polity	-.006*** (.0001)	-.006*** (.0003)	-.006*** (.0004)	-.006*** (.0001)	-.005*** (.0003)	-.006*** (.0001)
Education		.2737*** (.0624)	.0891 (.0727)		.2511*** (.0617)	.0613 (.0719)

GDP per capita (t-1)		-1.200***	-1.149***		-1.201***	-1.151***
		(.022)	(.0245)		(.0217)	(.0242)
Inflation change (t-1)			-.0082			-.0071
			(.0100)			(.0100)
constant	-1.30***	.552***	.0300	-1.30***	.5439***	.0195
	(.0168)	(.2185)	(.2484)	(.0168)	(.2157)	(.2452)
Obs	23716	23313	20074	23732	23329	20090
Groups	77	74	74	79	76	76
Log Likelihood	-63523.7	-63085.5	-53511.6	-64054.1	-63590.3	-54013.7
Notes: *** significant at 1%, ** significant al 5%, * significant at 10%.						

Table 5 reports the results of our regressions. Both random (RE) and fixed-effects (FE) estimations are presented. Our hypothesis is confirmed. The number of victims of terrorist incidents is significantly increasing compared to the number of victims of the previous incident in the same country. Terrorist brutality shows an upward trend. As noted above, the coefficient on the lagged value of the number of victims can be interpreted as a growth rate. In fact, following Cameron and Trivedi (1998), for models with an exponential conditional mean, the coefficient equals the change in the conditional mean if the regressor changes by one unit. Brandt et al. (2000) show that including a lagged count in the exponential function of an event count model estimates a linear exponential growth rate. For a one-unit increase in the *pastvict* variable, the expected number of victims increases, approximately, by 0.13 per cent. Since our dependent variable is discrete, such coefficient has to interpreted above all in qualitative terms. Number of victims is not random. It follows an upward trend and we interpret it as outcome of a competition between groups.

The coefficients of dummy variables used to capture the Islamist character of terrorist brutality are significantly positive. Only the dummy ‘civilian’ turns to be insignificant in model 3 and 6. The covariates present the expected signs. A negative significant association between polity and terrorist brutality emerges. Democratic countries experience less terror. The association between lagged GDP per capita and the number of victims is significantly negative. The opportunity-cost argument is confirmed.

Instead, there is no significant association between the CPI and the number of victims. At the same time, there is room to defend the ‘productivity argument’ too. The higher the education index, the higher is the number of victims of terrorist incidents. The evidence is not conclusive in this respect given that coefficients are not significant in all regressions. Main results are robust if we eventually consider different reaction periods (tables 6 and 7).

Table 6 – Dependent Variable: Victims by Event, Panel Negative Binomial Regression, reaction time 3 months

	FE	FE	FE	RE	RE	RE
	1	2	3	4	5	6
Pastvict	.0013*** (.000)	.0013*** (.000)	.0012*** (.000)	.0013*** (.0001)	.0013*** (.0001)	.0012*** (.0001)
Bombing	.1061*** (.0158)	.1204*** (.0159)	.0797*** (.0174)	.1059*** (.0158)	.1206*** (.0159)	.0801*** (.0174)
Civilian	.0373*** (.0161)	.0352*** (.0162)	.0278* (.0175)	.0370*** (.0161)	.0346** (.0162)	.0271* (.0175)
Islamist	.1386*** (.0216)	.106** (.0218)	.136*** (.0238)	.1398*** (.0216)	.1055*** (.0218)	.1361*** (.0238)
Interaction (bombing*civilian*Islamist)	.116*** (.0435)	.1377*** (.0434)	.1543*** (.0472)	.1179*** (.0434)	.1429*** (.0433)	.1609*** (.0471)
Polity	-.006***	-.006***	-.006***	-.006***	-.006***	-.006***

	(.000)	(.0003)	(.0004)	(.0003)	(.0003)	(.0001)
Education	.2804***	.0898		.2641***	.0697	
	(.0635)	(.0742)		(.0630)	(.0736)	
GDP per capita (t-1)	-.193***	-.139***		-.1963***	-.144***	
	(.0224)	(.0252)		(.0222)	(.0249)	
Inflation change (t-1)			-.0107			-.0096
			(.0100)			(.0100)
Const	-1.30***	.491***	-.0433	-1.303***	.5089***	.0245
	(.0170)	(.223)	(.2542)	(.0170)	(.2207)	(.2516)
Obs	23299	22937	19708	23342	22978	19753
Groups	64	61	60	76	72	72
Log Likelihood	-62661.8	-62294.9	-52760.7	-63139.2	-62745.9	-53208.2

Notes: *** significant at 1%, ** significant at 5%, * significant at 10%.

Table 7 – Dependent Variable: Victims by Event, Panel Negative Binomial Regression, reaction time 2 months

	FE	FE	FE	RE	RE	RE
	1	2	3	4	5	6
Pastvict	.0012***	.0013***	.0012***	.0013***	.0013***	.0012***
	(.000)	(.000)	(.000)	(.0001)	(.0001)	(.0001)
Bombing	.1068***	.1214***	.0806***	.1068***	.1217***	.0813***
	(.0159)	(.0160)	(.0175)	(.0159)	(.0159)	(.0175)
Civilian	.0366***	.0346**	.0266	.0366***	.0342**	.0260
	(.0162)	(.0162)	(.0176)	(.0162)	(.0162)	(.0176)
Islamist	.1387***	.1049***	.1351***	.1402***	.1048***	.1353***
	(.0216)	(.0219)	(.0239)	(.0216)	(.0218)	(.0238)

Interaction (bombing*civilian*Islamist)	.1118***	.1352***	.1504***	.1141***	.1404***	.1571***
	(.0436)	(.0435)	(.0474)	(.0436)	(.0434)	(.0473)
Polity	-.006***	-.006***	-.006***	-.006***	-.006***	-.006***
	(.000)	(.0003)	(.0004)	(.0003)	(.0003)	(.0004)
Education		.3011***	.1055		.2829***	.0829
		(.0640)	(.0749)		(.0634)	(.0742)
GDP per capita (t-1)		-.202***	-.147***		-.205***	-.151***
		(.0227)	(.0254)		(.0223)	(.0251)
Inflation change (t-1)			-.0108			-.0097
			(.0100)			(.0100)
const	-1.30***	.581***	-.0295	-1.30***	.5923***	.0414
	(.0171)	(.225)	(.2568)	(.0171)	(.2225)	(.2540)
Obs	23088	22732	19511	23134	22776	19558
Groups	62	59	58	76	72	72
Log Likelihood	-62123.1	-61765.1	-52261.8	-63591.1	-62206.2	-52698.5
Notes: *** significant at 1%, ** significant at 5%, * significant at 10%.						

5. Policy Implications

This article examines the brutality of the Jihadist terrorism in the period 2002-2010 in 79 countries. The evidence suggests that the number of victims of Al Qaeda-style terrorist attacks increases compared to number of victims of previous attacks in the same country. Democracy and terrorist brutality are negatively associated. The negative association between GDP per capita and the number of victims confirms the opportunity-cost argument.

The policy implications are twofold. First, since groups behave as they were in a contest some measures can be taken to affect the information about its rules, design and prize. Above all, a contest designer is credible when fulfilling the promise of rewarding winners.

In particular, since rewards to terrorist groups may also be expected to be also of a monetary nature, tracking financial flows of terrorist organizations becomes a critical task. This may undermine the credibility of the Jihadist leadership. The argument for the international cooperation on regulating financial flows is thus strengthened. Evidently this cannot be undertaken at expense of democratic liberties. The significant negative association between democracy and brutality of terror is clear in this respect.

Secondly, a general improvement of the economic opportunities has the potential to reduce the brutality of terrorist attacks. That is, raising opportunity costs for terrorists may constitute an effective counterterrorism policy. What we would claim as novelty is that the opportunity cost may hold not only for the emergence but even for the brutality of terrorism. This complements the strategy proposed by Frey (2004/2009) that stresses the potential of a counterterrorism policy alternative to military deterrence.

6. *Summary and conclusion*

In this article we have examined the brutality on terrorism in the light of contest theory. In the first part, we introduced the argument by highlighting some insights from contest theory which can be applied in this context. In the second part we presented the empirical application based on the hypothesis outlined. The empirical analysis shows that *the number of victims of Al Qaeda-style terrorist attacks increases compared to number of victims of previous attacks in the same country*. There is an upward trend in terrorist brutality. This seems to confirm that terrorist groups behave as if they are in a contest. They observe the results of previous attacks and maximize their efforts in order to launch attacks more destructive than previous ones perpetrated by competing groups. The upward trend in terrorist casualties is interpreted as the outcome of competition between groups. This constitutes a novel empirical result which sheds new light on the ‘production’ and ‘brutality’ of Jihadist terrorism.

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Appendix

Table A.1 Countries and terrorist events						
	n. events 2002- 2010	Jihadist events			n. events 2002- 2010	Jihadist events
Iraq	6307	846	Central public	African Re-	22	0
India	2746	179	Mali		19	5
Pakistan	2553	570	Germany		18	1
Afghanistan	2443	1453	Peru		17	0
Thailand	1458	87	Niger		16	4
Philippines	1045	319	Venezuela		16	0
Russian Fed- eration	944	68	Ireland		15	0
Algeria	774	648	Egypt		14	4
Colombia	751	0	Bosnia		14	1
Sri Lanka	670	1	Canada		14	1
Somalia	587	200	Ivory Coast		14	0
Israel	479	180	Belgium		14	0
Nepal	460	0	Haiti		13	0
Nigeria	306	73	Senegal		13	0
Greece	291	0	Austria		12	0
Turkey	225	6	Morocco		11	6
Spain	212	6	Rwanda		11	0
Yemen	187	69	Mauritania		10	8
United States	144	0	Sweden		10	6
Sudan	143	10	Netherlands		10	1
Bangladesh	138	26	Argentina		10	0
Lebanon	133	15	Ecuador		10	0
Indonesia	127	13	Uzbekistan		9	5
Uganda	87	3	Guatemala		9	0
Georgia	84	0	Honduras		9	0
Burundi	83	0	Kyrgyzstan		9	0
Myanmar	72	0	New Zealand		8	3

Iran	70	18	Australia	8	0
France	58	1	Bolivia	8	0
Italy	49	0	Jordan	7	4
Kenya	43	11	Angola	7	0
Great Britain	40	6	Kuwait	6	1
Kosovo	40	1	Arzerbaijan	6	0
Ethiopia	38	7	Malaysia	6	0
Saudi Arabia	36	17	Eritrea	6	0
China	36	7	Brazil	6	0
Mexico	35	0	Bahrain	5	0
Chad	29	0	Tajikistan	5	2
Chile	28	0	Syrian Arab Republic	5	0
Macedonia	26	0			

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