

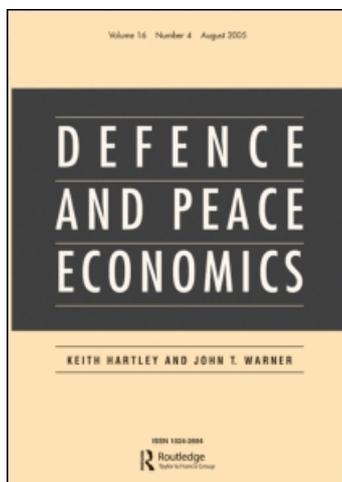
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THE ECONOMICS OF TERRORISM: A (SIMPLE) TAXONOMY OF THE LITERATURE

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We draw on existing surveys on the economics of terrorism, classifying the contributions to the field by theme, main approach and methodology. Research articles are divided into the themes: *Definition and measurement of terrorist activities*; *Nature of terrorists*; *Utility cost of terrorism*; *Impact of terrorism on aggregate output*; *Terrorism and specific sectors of activity*; *Terrorism and economic policy*; and *Counter-terrorist policies*. For the set of papers examined, as well as for each theme, we divide the papers by main approach – macroeconomic/microeconomic – and methodology – theoretical/empirical. We find wide variation in approach/methodology across research themes, suggesting extensive research opportunities.

Keywords: Terrorism; Microeconomics; Macroeconomics; Theory; Empirics

JEL Codes: A12; F52; H56

1. INTRODUCTION

The last decade has witnessed the re-emergence of terrorism research, not least due to the pressing policy interest after the attacks of September 2001 in New York. While the economics of terrorism has been a research topic for some decades now, recent efforts have uncovered a wealth of topics and a depth and diversity of approaches that make the mapping of existing knowledge an important endeavor.¹ From what causes terrorism, its consequences for production and welfare, and the best form to counter its impact, terrorism research developed in a very eclectic way.² However fruitful, the diversity of terrorism research was not accompanied

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¹ In this essay we concentrate on the literature of the past two decades, which has brought attention to the causes and consequences of terrorism, part of the broader area of the economics of conflict.

² For surveys on economics and terrorism see Laitin and Shapiro (2008) on the motivations and organization of terrorists, Frey *et al.* (2007) on the costs of terrorism, Brück and Wickström (2004), Enders and Sandler (2009) on the consequences of terrorism, Drakos (2009) on the data availability and needs, and Brück *et al.* (2004) and Llussá and Tavares (2008) on the different themes and the research agenda. Llussá and Tavares (2007) provide a first 'graphical' presentation of the distribution of papers on the economics of terrorism by approach and methodology. Brück and Wickström (2004), Enders and Sandler (2006), and Keefer and Loayza (2008) are important comprehensive volumes. See also the books by Frey (2004) and Brück (2006).

by any substantial increase in cross-fertilization between themes and methodologies. The cost to pay might be a more limited impact of research on policy, as well as the prevalence of under-exploited themes and methodologies. The purpose of the current paper is to organize in a suggestive way the existing body of knowledge on the economics of terrorism, classifying the major contributions in terms of themes and methodologies. The increasing availability of quality datasets,³ the relative consensus building around the utility costs of terrorism and the dynamics of terrorist recruiting suggest that a mapping of existing knowledge is an important way to encourage new research avenues.

This paper proposes just that: divide the existing papers into different themes and, for each theme, according to its main approach – microeconomic or macroeconomic – and methodology – theoretical versus empirical. We bring into evidence how different themes tend to employ given methodologies and approaches. Although understandable, those differences leave research gaps open so that our portrait of the literature can contribute to correct unnecessary imbalances that stand in the way of the advancement of knowledge.

The now ominous word ‘terrorism’, with its sense of extreme and indiscriminate violence, can be traced to the Robespierre years of revolutionary France, and has been associated with the state policies of nations under Nazism or Stalinism, which have victimized their own citizens.⁴ In spite of their extreme historical importance, here we do not address state-level totalitarian experiments that resulted in mass terror, and the reason is our belief that the set of tools required is mostly beyond the reach of economics. We adopt Enders and Sandler’s (2002) definition of terrorism as ‘the premeditated use or threat of use of extra-normal violence or brutality by sub-national groups to obtain a political, religious, or ideological objective through intimidation of a huge audience, usually not directly involved with the policymaking that the terrorists seek to influence’.⁵

From most definitions we can distill four elements that help characterize terrorism:

- the ‘underground’ or informal nature of the individuals or organizations that perpetrate acts of terrorism;
- the premeditated – and ‘rational’? – element in their pursuit of their objectives;
- the key role of violence, often of an extreme nature;
- the intended impact on a broad audience well beyond the direct targets.

Unfortunately, it is likely that terrorism will continue to strike and will evolve in new ways that will demand in-depth studies of its determinants and consequences. We believe strongly that clarifying how the methodological effort and focus of terrorism research has been distributed so far is an important step to make future research more aware of the existing state of knowledge and more productive in producing new knowledge to counteract the effects of terrorism.

2. TERRORISM RESEARCH: A (SIMPLE) TAXONOMY

We organize the study of the economics of terrorism according to seven different themes, namely: *Measurement of terrorist activity*; *The nature of terrorists*; *The utility cost of terrorism*;

³ As highlighted in Drakos (2009).

⁴ See Harris (2005) and Bergesen and Lizardo (2004) for a discussion of the definitions of terrorism.

⁵ The official definition by the United States Department of State sees terrorism as ‘premeditated, politically motivated violence perpetrated against noncombatant targets by sub-national groups or clandestine agents, usually intended to influence an audience’. See Office of the Coordinator for Counterterrorism (1997). Mickolus (1980: xiii), sees terrorism as ‘the use, or threat of use, of anxiety-inducing extra-normal violence for political purposes [...] when such action is intended to influence the attitudes and behavior of a target group wider than the immediate victims.’

The impact of terrorism on aggregate output; Terrorism and specific sectors of activity; Terrorism and economic policy; and Counter-terrorism. The first three themes cover the measurement of terrorism, the analysis of the characteristics and motivations of terrorists and terrorist groups, and the cost of terror at the individual level. We then proceed to a more aggregate level and assemble studies of the cost of terrorism in terms of output and output growth, its impact on specific sectors of activity, and its effect on fiscal and monetary policies. The last theme comprises the literature on counter-terrorism measures. These themes were chosen to strike a compromise between parsimony and detail; that is, we propose a comprehensive classification that is sufficiently detailed but suggestive enough that researchers can relate to it. We read each paper and classified it into one or more themes, according to the contributions we deemed most relevant.⁶

Table I present information on the theme, approach and method of the papers analyzed. Papers were selected on the basis of their salience, as suggested by the literature reviews of the field. Of the total of 148 papers examined, 24 fell under *Measurement of terrorist activity*; 50 under *The nature of terrorists*; 11 under *The utility cost of terrorism*; 16 under *The impact of terrorism on aggregate output*; 44 under *The sectoral impact of terrorism*; seven under *Terrorism and economic policy*; and 45 under *Counter-terrorism*. The topical distribution reveals that surprisingly little effort has been given to examining the utility cost of terrorism and the impact of terrorism on aggregate output, two extremely important topics. The latter has often revealed the little aggregate economic cost of terrorist activity, while there is a growing consensus that the individual utility costs of exposure to terrorism far outweigh what would be suggested by ‘rational estimates’. The scarce number of studies on the impact of terrorism on fiscal and monetary policy is probably justified by the little policy salience of such an issue.

We then classify papers in the literature on the economics of terrorism according to its main approach – either micro or macro – and methodology – either theoretical or empirical. Papers focusing on the behavior of individuals, groups or business firms, with the emphasis on individual incentives are classified as Microeconomic in approach. Papers that describe or explain the behavior of aggregate economic variables, such as output or its main components, are classified as using a Macroeconomic approach. The distinction between Empirical and Theoretical is more straightforward.⁷ For each paper, we adopted only one classification – either Macro or Micro, either Theoretical or Empirical. This means we had to decide in which area a specific

TABLE I Papers on the Economics of Terrorism. Distributed by Theme, Main Approach and Methodology

	<i>Macro Empirical</i>	<i>Macro Theoretical</i>	<i>Micro Empirical</i>	<i>Micro Theoretical</i>	<i>TOTAL</i>
Definition and Measurement of Terrorist Activities	14	1	3	6	24
The Nature of Terrorists	23	4	1	22	50
The Utility Cost of Terrorism	0	0	6	5	11
The Impact of Terrorism on Output	12	3	1	0	16
Terrorism and Specific Sectors of Activity	20	5	14	5	44
Terrorism and Economic Policy	4	1	1	1	7
Counter-Terrorist Policies	10	6	7	22	45
Total	88	15	32	74	

Note: See Appendix I for the list and classification of papers examined.

⁶ Thus, any given paper appears as contributing to at least one topic area, although often it will appear under more than one topic.

⁷ Papers classified as empirical in focus use at least an intelligent interpretation of the data. Some of the papers classified as theoretical consist in an informal discussion of conceptual mechanisms.

paper brings forth its main contribution.⁸ All papers fit into one of four subsets of the literature, as presented in Table I.⁹ This taxonomy reveals important aspects of the literature on the economics of terrorism. First, the literature is almost evenly divided into micro and macro approaches, with respectively 103 and 106 papers using a Micro and a Macro approach. The methodological approach is less balanced: 120 papers draw on an Empirical methodology and only 89 have a mostly Theoretical bent. Most illuminating is the analysis of the crossing of categories: 70% of the Micro papers are theoretical in nature, compared with 14% for Macro papers. This somewhat schizophrenic approach to the economics of terrorism suggests great gains from the interaction of researchers with different motivations and abilities.

The definition of terrorism adopted and transcribed above may explain, at least in part, this diverse distribution of research efforts. Since the aim of terror attacks is to cause fear and harm well beyond the directly affected victims, it is natural that empirical estimates of its aggregate effects are a substantial part of the literature. As to the individual actors, given the underground nature of terrorist groups and their members, empirical information at the micro level is scarce and often of an indirect nature. The emphasis in micro studies naturally shifts to a conceptual analysis of individual motivations and consequences. The seemingly 'irrational' nature of violence may also work as an incentive to apply micro-based theoretical models in the analysis of terrorism, testified by the notable advances that have been made in 'rationalizing' the incentives of terrorists and terrorist organizations.

3. THEMES, APPROACH AND METHODS IN TERRORISM RESEARCH: EXAMPLES

In this section we selected a prototypical paper for each of the seven themes in the economics of terrorism mentioned above and discuss the content of those papers. The papers were selected from among the top cited and those deemed representative of the approach taken by other researchers in the same theme.¹⁰ Our purpose is to highlight the typical choices made in addressing the themes suggested, as well as the specific contribution of the paper in question. Taken together, these seven 'prototypical' papers provide a good summary of what we know – or not – on the economics of terrorism. Table II summarizes the content of each of the selected papers, while Figure 1 provides an overview of the breakdown of each set of papers – ordered by theme – in terms of its approach – Macro or Micro – and methodology – mostly theoretical or empirical in nature.

In the first theme, on the *Definition and measurement of terrorist activities*, articles have relied on a number of mostly aggregate terrorism datasets that progressively became available. One of the most influential papers, Enders and Sandler (2000), published one year before the attacks of September 2001, ominously asked whether transnational terrorism was becoming more threatening. The authors employ time-series methods and uncover several important facts on the cycle and trend characteristics of the time series of attacks and victims of terrorism. The authors empirically confirm the growing threat of terrorist attacks. As shown in Figure 1, papers on the *Definition and measurement of terrorist activities* adopt for the most part a Macro

⁸ Of course some papers rely on both theory and empirics and others, less frequently, may be seen as combining micro and macroeconomic approaches. But, although subjective, the classification of most papers is relatively straightforward. Two frequent examples are papers dealing with macro issues from an empirical perspective by providing estimates of the impact of terrorism on aggregate output; a typical micro theoretical paper models the individual incentives to participate in terrorist activities.

⁹ Each of the papers examined are explicitly mentioned in the Appendix, together with the individual classification adopted.

¹⁰ We have selected among the three top cited papers according to Google Scholar, as a measure of impact.

TABLE II A Few Prototypical Papers on the Economics of Terrorism. By Theme

<i>Paper</i>	<i>Question</i>	<i>Method</i>	<i>Conclusion</i>
Enders and Sandler (2000)	Investigate how the threat of transnational terrorism has evolved over time.	The authors apply time-series techniques to alternative data series of terrorist attacks and associated casualties, including its trend and cyclical components. Data on transnational terrorist incidents is drawn from International Terrorism: Attributes of Terrorist Events, the ITERATE database.	There was a decline in the number of transnational terrorist incidents in the 1990s but each incident tended to be more deadly. There is a rise in religious-based terrorism which is associated with the increased mortality. The cycles in terrorist incidents are due to underlying cycles in casualties.
Krueger and Maleckova (2003)	How do individual characteristics such as education and income relate to terrorist activity and support? Is there a causal connection between individual characteristics and terrorism?	Draws inferences from: the determinants of 'hate crimes'; public opinion data on Palestinians' attitudes toward terrorism; statistical and biographical analysis of the determinants of participation in terrorist groups; cross-country data set on whether a country's economic conditions are associated to the likelihood that their citizens become involved in transnational terrorism.	Terrorists – including suicide bombers – are at least as likely to come from economically advantaged families and have a relatively high level of education as the contrary. A connection between poverty, education and terrorism is indirect, complicated and probably quite weak.
Sunstein (2003)	How does emotional involvement affect the perceived utility cost of an event?	Characterizes the behavior characteristic coined 'probability neglect', discusses why it occurs and how it affects individual perception of costs. Surveys evidence of probability neglect and discusses the positive and normative issues related to how government policy should react to its presence.	When people's emotions are activated the probability of harm tends to be neglected and people focus instead on the badness of the outcome. Terrorists seem to have and use a working knowledge of such probability neglect, producing fear that greatly exceeds the discounted harm. If a terrorist attack is easy to visualize, large-scale changes in thought and behavior are to be expected, even if the statistical risk is low. On the one hand, the government should not capitulate if the public shows excessive sensitivity to the risk of terrorism; on the other hand, and far better information and education, since public fear is a cost in itself, there are instances where governments need to act to reduce risk.
Abadie and Gardeazabal (2003)	Investigates the economic effects of terrorism by using evidence from a case-study of the Basque Country.	The authors use two different strategies. First, they develop a 'synthetic' control region which is a combination of Spanish regions to construct a 'counterfactual' Basque Country without terrorism whose economic performance can be compared to the actual experience of the Basque Country. In addition, a trace declared in 1998 is used as a natural experiment and, together with event study techniques, employed to estimate the effects of terrorism on the stock of firms involved in the Basque country.	The outbreak of terrorism is estimated to have decreased per capita GDP in the Basque Country by about 10 percentage points relative to the synthetic control region and this difference widens in response to peaks in terrorist activity. The stocks of firms with significant business in the Basque Country show a positive relative performance as the trace became credible, and negative relative performance at the end of the truce.

TABLE II (Continued)

Paper	Question	Method	Conclusion
Enders <i>et al.</i> (1992)	Which is the impact of terrorism on tourism revenues?	Employ an autoregressive integrated moving average (ARIMA) technique and a forecasting model for the share of tourism to examine tourism revenues in a large sample of European countries during the period from 1974 to 1988.	Terrorist incidents have an adverse effect on tourism revenues in Europe and tourists substitute away from some countries to others to minimize the risk of terrorist incidents. Since 1974 the revenue losses associated with tourism are large, and much of the loss occurred in the 1980s.
Lenain <i>et al.</i> (2002)	What are the aggregate costs of terrorist attacks and their likely channels of impact?	Three channels of influence of terrorist attacks on the aggregate economy are discussed: the reduction in insurance coverage stemming from the perception of greater risk; higher trade costs and their impact on international trade; and the increased expenditure on security measures.	Terrorist threats have long-lasting, if diffuse, macroeconomic repercussions. The net long-run macroeconomic impact is tangible but probably limited.
Frey and Luechinger (2003)	What are the relative benefits of alternatives to deterrence in fighting terrorism activity?	The paper discusses how to and why implement counter-terrorist policies not based on deterrence.	There are superior strategies to counter terrorism than mere deterrence. The emphasis should be on making terrorist attacks less attractive, and raise the opportunity cost – rather than the material cost – of performing them. The authors argue for a ‘positive sum’ game among the interacting parties, in contrast to the deterrence system’s negative sum game interaction that leads to more attacks and victimization.

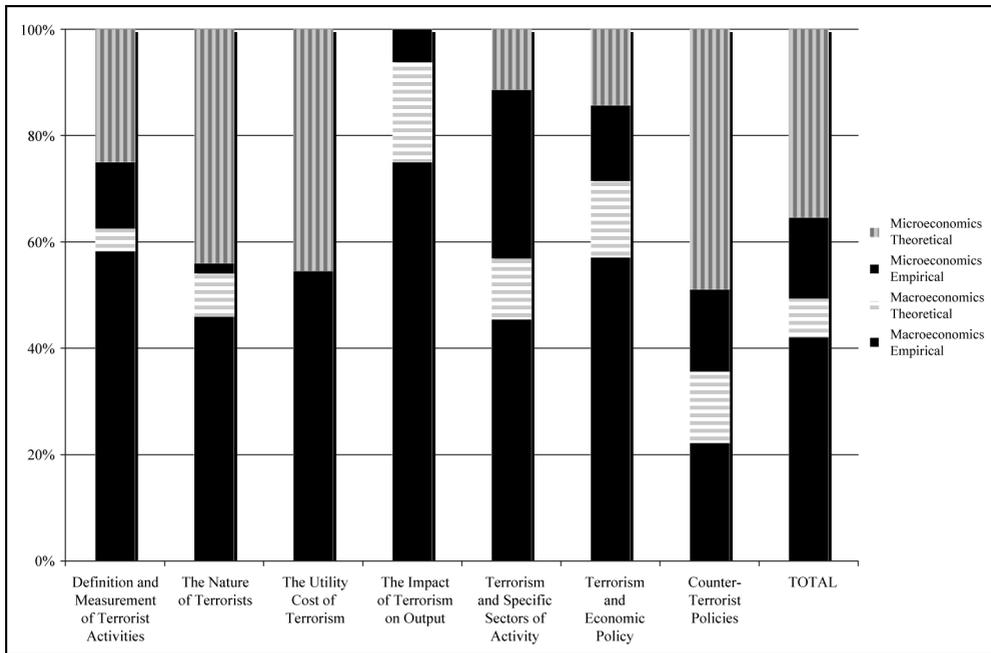


FIGURE 1 Themes and methods in the economics of terrorism. Distribution of the papers by theme, main approach and methodology

approach (62%) and most are empirical in method (71%). As with the universe of papers examined, Macro studies are overwhelmingly empirical in nature, contrasting with Micro studies. The literature in this theme has established the low frequency of terrorist attacks, its geographic and temporal clustering, its relation with country income per capita, political institutions and political proximity to the United States. Economic fluctuations and electoral cycles have also been proposed as relevant. In this theme, and in the wake of previous work by Enders and Sandler (1995, 2002), Frey (2004), and Basuchoudhary and Shugart (2007), we need a greater and deeper discussion of the existing measures of terrorist activity, as they relate to the objectives, means, targets and terrorist organizations involved. In addition, empirical research on this theme needs to address more carefully the importance of outliers, as well as measuring the 'latent' or underlying level of terrorist activity, beyond actual attacks. The distribution by approach and method suggests the importance of further conceptual work at the macro level.

Research on *The nature of terrorists* aims at explaining why specific individuals or groups conduct or lend support to terrorist activities. Krueger and Maleckova (2003) surveys and investigates research on the relation between individual characteristics and support for terrorism. The paper is based on poll data and a survey of the empirical literature, and suggests that the connection between income, education and terrorism is indirect, complex, and probably weak. Although extremely influential, it goes against the grain of most Micro theoretical approaches to the theme of the nature of terrorism and argues that terrorism is 'more accurately viewed as a response to political conditions and long-standing feelings of indignity and frustration that have little to do with economics'. Articles on the theme are well balanced as to the approach and methodology chosen. Work on this theme has made substantial progress, and against most common prejudices, progressively emphasized the applicability of rational choice theory to explain terrorist activity. Ideas such as extreme trade-offs – where your own life is a choice variable – group identity and club good theory, as well as the importance of social sanctions, have been proposed. Papers such as Wintrobe (2006) 'rationalize' the pres-

ence of extreme acts such as suicide attacks. The macroeconomic approach has emphasized terrorism as one of several forms of political conflict and the imperfect information game between governments and terrorists, as in Laitin and Shapiro (2008).

Terrorist acts impact more than the probabilities of occurrence suggest and the literature on *The utility cost of terrorism* has explored the extent of that personal cost. Interestingly, all contributions in this area are Micro in nature, and about half deal with theoretical issues. Sunstein (2003) carefully characterizes instances of ‘probability neglect’: when individuals focus on the badness of outcomes rather than the expected utility cost of those outcomes, that is, neglect information on probabilities. Terrorism is a prime instance of such behavior and governments need to be aware of it when responding to terror. The most salient of the issues studied relates to the ‘non-rational’ evaluation of the cost of exposure to terrorism. The consensus is that the estimated decrease in individual welfare cannot be explained within the expected utility framework, as highlighted in Becker and Rubinstein (2004), for instance. Empirical papers on this theme provide empirical estimates of the utility losses of terrorism, an example being Camacho (2008).¹¹

A considerable number of papers in the literature concentrate on *The impact of terrorism on output*. The majority of these are Macro in approach (94% of the total), and empirical in methodology (81% of the total). Most have found the cost of terror on aggregate output to be relatively small and short-term, very concentrated in time and country-wise, and varying with country income and country institutions. A notable example of empirical exercise is Abadie and Gardeazabal (2003), which proposes a methodology based on a counter-factual of a region persistently affected by terrorism to estimate the costs of terrorist activities. The authors find that the region at stake – the Basque Country – witnessed a decrease of 10% in output after the emergence of terrorist activity, and companies with substantial business in the region suffered significant losses to their stock market valuation. An important theoretical contribution at the macroeconomic level is presented in Eckstein and Tsiddon (2004), which discusses the likely impact of terror on the components of aggregate activity.

The study of *Terrorism and specific sectors of activity* reveals how vulnerable are certain sectors – namely tourism, transportation and international trade – to terrorist threats. Most papers in this theme are empirical in nature – about 77% of the total – and Macro in approach – 94% of the total. Examples include Nitsch and Schumacher (2004) on trade, Ito and Lee (2004) on airline demand, and the seminal Enders *et al.* (1992) on tourism, which employs time-series forecasting methods to estimate the loss in tourism revenues in countries subject to terror attacks. The authors also examine how tourists respond to terrorism by substituting away from these countries toward other tourist destinations. Notably, some economic sectors are positively affected by the incidence of terrorism, as made evident in Berrebi and Klor (2005) for defense and security-related industries. Given the dramatically diverse impact of terrorism across economic sectors, more theoretically-grounded work around this theme is in order.

Fiscal and monetary policy choices can also be affected by acts of terror, although the impact is likely limited given the low estimate for the aggregate cost of terror. The number of articles under the theme *Terrorism and economic policy* is extremely low and has mostly dealt with the relation between terrorism, government spending and the deficit. Lenain *et al.* (2002) discuss the likely sectors mostly affected by terrorism and estimate the associated tangible costs of terror to be low.

The issue of *Counter-terrorist policies*, on the contrary, is very widely studied. Although most analyses are conducted at a conceptual although relatively informal level, the discussions are usually rich and detailed as far as the incentives of policy-makers and terrorists go. These

¹¹ See Frey *et al.* (2007) for a survey of articles on this issue.

studies have argued that terrorist groups substitute across means, targets and time and that deterrence, although elected as the main response by governments, may have important perverse effects. Here, Frey and Luechinger (2003) is exemplary in developing an argument for an alternative to deterrence as the basis of counter-terrorism policy, while acknowledging the incentives for governments to pursue precisely the existing set of policies.¹² The theme of *Counter-terrorist policies* is ripe for in-depth empirical work detailing the impact of policies on attacks and victimization.¹³ In addition, the asymmetries of information and means between governments and terrorists, and the symbiotic relation between the media and terrorist groups, are an important field for future empirical research.

4. CONCLUSION

In this paper we made clear how different theme areas in the economics of terrorism literature have lent themselves to widely diverse approaches, suggesting that important research opportunities are open through the comparison of results and methodologies. As an example, the distribution between empirical and theoretical methods is almost schizophrenic, with most Micro studies being theoretical in nature and most Macro studies empirically organized. More specifically, while themes such as the *Utility cost of terrorism* and *Counter-terrorist policies* delve heavily on a Micro and Theoretical approach, the study of the *Impact of terrorism on aggregate output* uses almost exclusively a Macro approach. The existing imbalances across themes suggest a latent demand for either empirical validation of existing concepts, or formalization of empirical regularities. Given the urgency of the topic, developments in the economics of terrorism should move to cover the gaps in existing knowledge.

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¹² This seems in contradiction with the literature on the nature of terrorists, as exemplified in Krueger and Maleckova (2003) – discussed above. Especially as there is evidence that economic agents – the electorate, in particular – understand the complexity of the responses to terrorism and are receptive to more nuanced and flexible policy responses, as Shambaugh and Josiger (2004) have shown in the case of hostage taking.

¹³ Articles such as Frey (2004) discuss the ‘carrot’ versus ‘stick’ option, and clamor for empirical validation through creative work.

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SECT	MAC	EMP
OUT	MAC	EMP
COUN, NAT	MAC	THE
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NAT, OUT	MAC	EMP
COUN	MIC	THE
SECT	MAC	EMP
NAT	MIC	THE
MEA, NAT, COUN	MAC	EMP
UTI	MIC	THE
NAT	MAC	EMP
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NAT, COUN	MIC	THE
MEA, NAT	MIC	THE
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MEA	MIC	EMP
SECT	MIC	EMP
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MEA, NAT, OUT, COUN	MAC	THE
SECT	MIC	EMP
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MEA	MAC	EMP
NAT	MAC	THE
UTI	MIC	EMP
SECT	MIC	EMP
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SECT	MAC	EMP

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UTI	MIC	EMP
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MEA, SECT, COUN	MAC	THE
NAT, COUN	MAC	THE
SECT, COUN	MAC	EMP
SECT	MIC	EMP
NAT	MAC	EMP
UTI	MIC	THE
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SECT	MAC	EMP
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COUN	MIC	EMP
SECT	MIC	EMP
COUN	MIC	EMP
SECT	MAC	EMP
NAT	MAC	EMP
OUT, SECT	MAC	THE
ECPOL	MAC	EMP
OUT	MAC	EMP
NAT, COUN	MAC	EMP
MEA, COUN	MAC	EMP
MEA	MAC	EMP
SECT	MAC	EMP
MEA, COUN	MIC	THE
SECT	MAC	EMP

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SECT	MIC	EMP
COUN	MIC	THE
COUN	MIC	THE
UTI	MIC	THE
COUN	MIC	THE
NAT	MAC	EMP

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COUN	MIC	EMP
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SECT	MIC	EMP
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MEA, COUN	MIC	EMP
MEA	MIC	THE
NAT	MAC	EMP
OUT, ECPOL	MIC	EMP
MEA, COUN	MAC	EMP
OUT	MAC	EMP
SECT	MAC	EMP
UTI	MIC	EMP
MEA, COUN	MIC	THE

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UTI, COUN	MIC	THE
NAT	MAC	EMP
MEA, NAT	MAC	EMP
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NAT	MIC	THE
COUN	MIC	THE
ECPOL SECT	MAC	THE
SECT	MIC	EMP
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SECT	MIC	THE
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MEA, COUN	MIC	THE
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COUN	MIC	EMP
NAT	MIC	THE
COUN	MIC	THE
SECT	MAC	EMP
UTI, COUN	MIC	THE
MEA, OUT COUN	MAC	EMP
OUT	MAC	EMP
UTI	MIC	EMP
SECT	MIC	EMP
SECT	MIC	EMP
ECPOL	MIC	THE
NAT	MIC	THE
SECT	MIC	THE
OUT, COUN	MAC	EMP
OUT, SECT, COUN	MAC	EMP

Note: The black rectangle refers to the paper’s theme, the white to the approach chosen, and the grey to the methodology. Themes: Definition and measurement of terrorist activities (MEA); The nature of terrorists (NAT); The utility cost of terrorism (UTI); The impact of terrorism on aggregate output (OUT); Terrorism and specific sectors of activity (SECT); Terrorism and economic policy (ECPOL); and Counter-terrorist policies (COUN). Approach: Microeconomics (MIC) or Macroeconomics (MAC). Methodology: Theoretical (THE) or Empirical (EMP)