

de Groot, Olaf J.; Drakos, Konstantinos; Müller, Cathérine

**Research Report**

## How Rational Is the Response of Individuals to the Threat of Terrorism in Europe?

EUSECON Policy Briefing, No. 9

**Provided in Cooperation with:**

German Institute for Economic Research (DIW Berlin)

*Suggested Citation:* de Groot, Olaf J.; Drakos, Konstantinos; Müller, Cathérine (2011) : How Rational Is the Response of Individuals to the Threat of Terrorism in Europe?, EUSECON Policy Briefing, No. 9, Deutsches Institut für Wirtschaftsforschung (DIW), Berlin

This Version is available at:

<https://hdl.handle.net/10419/119590>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

Olaf J. de Groot, Konstantinos Drakos and  
Catherine Müller



© PETER NIXEY

- **What affects the perception of risk?**
- **Are people affected by terrorism in the long run as well as the short run?**
- **Do policy preferences change as a result of terrorism?**

**Summary:** In this Policy Briefing, we address two important questions. We look at the drivers of concern about terrorism and find that beyond individual characteristics, it is also affected by the occurrence of terrorism. When distinguishing between permanent and transitory terrorism, the first has a much stronger impact than the first. The second question concerns how terrorism affects the policy preferences of voters. We find that while a higher level of terrorist concern does increase people's willingness to trade off civil liberties for more security, a singular attack has only a temporary effect. After only a few months, people's preferences return towards their pre-attack levels.

## **POLICY BRIEFING**

November 2011 EUSECON Policy Briefing 9

# **How Rational is the Response of Individuals to the Threat of Terrorism in Europe?**

### **Introduction**

Since security is often defined as 'the feeling of being secure' (Engerer, 2011), it is important to know what affects this perception of security. It is a known fact that basic characteristics affect an individuals' perception of the world around them and in this Policy Briefing we address which of these characteristics affect their level of concern about terrorism. In addition to basic characteristics, we also look at whether people respond to the actual occurrence of terrorism in their country. This enables us to see whether the expectations concerning terrorism are behaving in sync with the actual threat level or whether these are unrelated. Using the London bombings as a case study, we further look at how the threat and occurrence of terrorism affect people's preferences when it comes to security measures that may reduce civil liberties in exchange for a possible increase in the level of security.

The research underlying the answers to these questions is studied in the EUSECON project, as well as the broader academic world. The results in this Policy Briefing are based on Bozzoli and Müller (2011) and Drakos and Müller (2010; 2011). Further research is referenced in these original studies.

### **The difference between risk and concern**

When it comes to terrorism, there is a significant literature on what influences the probability of an

attack. This risk is driven for a large part by what policies there are aiming to prevent attacks and how effective governments are at disincentivising individual terrorists or terrorist groups from participating in terrorist activities (Müller 2011). Typically, what is found is that economic hardship and social exclusion of specific groups further increases the probability of terrorist attacks (Blomberg et al., 2004).

The concern regarding terrorism addresses a different question, however. It is embedded in the literature on hazard analysis, which argues that individuals are not necessarily capable of assessing the 'true' risk of whether certain unlikely events will happen. The perception of the risk of terrorism is interesting from a policymaker's point of view since it is likely to drive policy preferences of individual constituents.

### **What drives the concern over terrorism?**

Using the results of the annual *Eurobarometer* survey, it is possible to construct an indicator for the degree to which the citizens of different countries are worried about terrorism (more details in Drakos and Müller 2010, 2011). Although the survey does not directly ask people about their degree of concern in this regard, it does ask respondents the following question: "What do you think are the two most important issues facing (OUR COUNTRY) at the moment?", for which respondents can choose from a total of thirteen different options. The indicator used in this analysis is the percentage of people who place terrorism among the top two major concerns.

Looking at the basic results for the period 2003-2008, we can see large differences between countries. Across years and countries, an average of 8 per cent of respondents considers terrorism to be a top concern, varying from 1 per cent in Croatia, Latvia, Lithuania and Slovenia to more than 64 per cent in Turkey and 42 per cent Spain in 2007. Other countries scoring consistently above the European average are Denmark, Great Britain and Northern Ireland. This already points towards a highly plausible explanation: with the exception of Denmark, each of these countries has a rich past of terrorist activity. However, these

averages hide the fact that there is also large within-country variation over time. Only 19 per cent of Turkey's respondents worry about terrorism in 2004, whereas 64 per cent of them do so in 2007. Another example is the Netherlands, which moves from being an average country in 2004 (9 per cent) to the third-most worried country in 2005 with 31 per cent.

In order to see the relationship between actual acts of terrorism and the concern about terrorism, these results are combined with data on terrorist attacks in the different countries. In addition to that, individual characteristics of the survey respondents are added as well and different types of regression analysis are used to analyse the relationship. The occurrence of terrorism during the year of the survey turns out to explain about 20 per cent of the variation, after controlling for the fact that some countries are inherently more concerned. Furthermore, it is possible to disentangle the effects of the trend and the cycle in terrorist activity. That is, it is possible to distinguish the effects of having an inherently larger probability of terrorism from the fact that during the survey year there was more intense terrorist activity. The results show that while both effects play a significant role, the trend effect appears to be much stronger. In other words: respondents are driven more by intrinsically high levels of terrorism than by the short-term effects of recent attacks.

## **Long-term trends drive the concern about terrorism more than recent events**

In addition to these results, we can also examine what the individual characteristics are that make a person more likely to worry about terrorism. The role of education is relatively small, with only those with no completed full-time education less likely to mention terrorism as a primary concern. Gender and marital status seem to matter, with males and singles being both less likely to be worried. Self-employed, managers and holders of other white-collar jobs also have a lower propensity to worry about terrorism. Rather interestingly, respondents living in rural areas show significantly higher levels of terrorism concern, although one would expect their risk exposure to actually be lower.

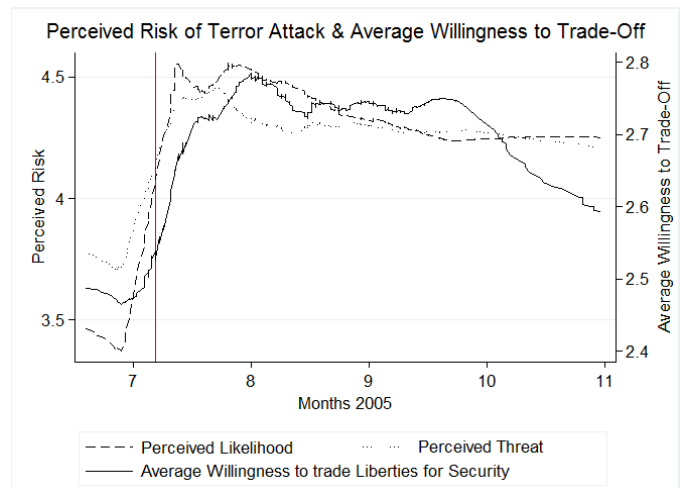
Finally, since the variable of interest used is chosen from a set of optional risk drivers, we can look at whether any of those risks influence the probability of mentioning terrorism. One can imagine after all that somebody with increased worries concerning other factors may be less likely to mention terrorism. It turns out the probability of mentioning terrorism as a risk factor is barely associated with other risk drivers.

### London attacks as a case study

The attacks on London on July 7, 2005 can be used as a case study to see what effects such an attack have on individuals' perceptions of security and their preferences regarding security provision (more details in Bozzoli and Müller 2011). Using the data from the *British Social Attitudes Survey 2005*, it is possible to study what the difference is between pre- and post-7/7 responses. This survey asks two relevant questions concerning the perceived level of risk. First, respondents are asked what they think the *likelihood* is of a future attack and second, it asks them how the *threat* of a terrorist attack in Britain *concerns* them. Both of these measures are tabulated in a scale from 1 to 5 (from low to high).

### British willingness to trade off civil liberties for more security did not permanently increase

The other relevant section in this survey is represented by a question concerning whether eight proposed policy measures should be implemented to reduce the risk of terrorism. Examples of these eight categories include compulsory identity cards, the rights of terrorist suspects and the use of torture. The respondents' answers are summarised in a scale from 1 to 4. The higher this index is, the higher the willingness to trade off liberties for more security. Figure 1 displays the perceived likelihood of an attack, the perceived personal threat and the willingness to trade off liberties for increased security. It is obvious that the attacks on 7/7 had a significant impact on all these measures, with large increases registered for each. However, after a few months, the risk perceptions and policy preferences appear to diverge, with risk assessments remaining higher for an



**Figure 1 Risk of terror and willingness to trade civil liberties** extended period of time, but policy preferences returning towards the pre-7/7 level.

Following up on that analysis, it is also possible to see whether different groups within society respond differently to the occurrence of the London attacks. It is found that all major groups in society respond to the attacks strongly, with relatively homogeneous intensity. Gender, marital status, age, education and ideological orientation all seem to make no significant difference. The only exception to this is religion, where adherents of non-Christian religions increase risk perceptions significantly more than Christians and non-religious respondents.

Independent of the attacks, however, like in the cross-country study, differences between groups are quite obvious, although there are differences between the perceived likelihood and the personal threat. For example, while males perceive the likelihood of an attack to be larger, they believe the personal threat to be smaller. In another example, being married does not affect the perceived risk of an attack, but increases the assessed personal threat.

Finally, we can assess the impact of demographic variables on the willingness to trade off civil liberties with security. Clearly, a respondent's estimated likelihood and personal threat of terrorist attacks increase this willingness to accept the trade-off. In addition to that, being older, having children, being Christian, being uneducated, being wealthy and being conservative are also associated with a larger

willingness to sacrifice civil liberties. However, like can be observed in figure 1, the effect of the 7/7 attacks is non-linear. Immediately after the attack, people are more willing to make the trade-off than at a later stage, even though levels of concern are (permanently) higher.

### Policy recommendations

In this Policy Briefing, we look at two main issues. First, we look at what affects individuals' perceptions concerning security. We find that these reflect to some extent the actual terrorism risk in the country. However, this risk is differently evaluated across subgroups of the population with particular characteristics.

The second issue we look at is how an actual attack changes the preferences concerning anti-terrorism measures. Going beyond the existing differences in preferences between different societal groups, the immediate increased demand for tougher measures is only temporary. In the longer run, a singular event does not affect policy preferences, although a permanently higher threat level does. Policymakers are thus warned not to respond too strongly to short-term changes in public opinion since these are largely driven by the immediate response to an attack and do not imply any structural change.

### Credits

This EUSECON Policy Briefing was authored by Olaf J. de Groot from the German Institute for Economic Research, Konstantinos Drakos from Athens University of Economics & Business and Cathérine Müller from the Institute of Development Studies at the University of Sussex. The views expressed in this briefing are the authors' alone.

### References

- Blomberg, S. Brock, Gregory D. Hess and Akila Weerapana (2004). 'Economic Conditions and Terrorism'. *European Journal of Political Economy* 20: 463-478.
- Bozzoli, Carlos and Cathérine Müller (2011). 'Perceptions and Attitudes to a Terrorist Shock: Evidence from the UK', *European Journal of Political Economy*, in press [doi:10.1016/j.ejpoleco.2011.06.005](https://doi.org/10.1016/j.ejpoleco.2011.06.005).
- Drakos, Konstantinos and Cathérine Müller (2010). On the Determinants of Terrorism Risk Concern in Europe. *Economics of Security Working Paper* No. 36, revised version. Berlin: Economics of Security.
- Drakos, Konstantinos and Cathérine Müller (2011). 'Terrorism Risk Concern in Europe', *Economics Letters* 112(2), 195-197.
- Engerer, Hella (2011). 'Security as a Public, Private or Club Good: Some Fundamental Considerations'. *Defence and Peace Economics* 22(2): 135-145.
- Müller, Cathérine (2011). 'The Economics of Terrorism from a Policy-Maker's Perspective'. *Defence and Peace Economics* 22(2):125-134.



EUSECON, or 'A New Agenda for European Security Economics' is a four-year collaborative research project, administered by DIW Berlin and funded by the European Commission that analyses the causes, dynamics, and long-term effects of both human-induced insecurity threats and European security policies.

For more information on EUSECON, please visit our website:

<http://www.economics-of-security.eu>

Or contact us at:

EUSECON  
Department of Development and Security  
German Institute for Economic Research  
Mohrenstrasse 58  
10117 Berlin, Germany  
Tel: +49-30-897889-277

© Olaf J. de Groot, Konstantinos Drakos and Cathérine Müller 2011