National Responses to Transnational Terrorism: Intelligence and Counterterrorism Provision

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Introduction

- Transnational terrorism:
  - Counterterrorism provision = strategic situation between countries
  - Standard results:
    - defensive/domestic CT oversupplied (neg. externalities)
    - offensive/pro-active CT undersupplied (pos. externalities)
  
  (Sandler and Lapan 1988, Sandler and Siqueira 2006 + others)

- This paper: Intelligence gathered by national agencies
  - → Private information

- Consequences for provision of defensive/domestic CT?
- Sharing of intelligence?
The Model

2 countries, 1 transnational terrorist organisation

Intelligence gathering
[signals about terrorists’ striking capability]

CT Investment decisions
[static game, invest or not]

Terrorists decide where to attack
["mechanical"]

Outcome realized
[attack successful or not?]
The Model

- **With complete information:**

<table>
<thead>
<tr>
<th>Invest (I)</th>
<th>Not Invest (N)</th>
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</thead>
<tbody>
<tr>
<td>Invest (I)</td>
<td>(-\frac{p}{2}D - C, -\frac{p}{2}D - C)</td>
</tr>
<tr>
<td>Not Invest (N)</td>
<td>(-D, -C)</td>
</tr>
</tbody>
</table>

- $D > 0$: Damage from successful attack
- $C > 0$: Cost of investment
- $p \in (0, 1)$: Prob of successful attack (if investment)

- **National Intelligence:** Uncertainty about $D$, private signals $d_i$

$$\rightarrow E[D|d_i]$$

- **Benchmark:** Both signals commonly known

$$\rightarrow E[D|d_1, d_2]$$

(CT oversupplied because game is a PD for a range of $D$’s)
Results

- Equilibrium:
  - Benchmark: \((Invest, Invest) \iff E[D|d_1, d_2] > 2C\)
  - National Intelligence: Cut-off equilibrium, \(i\) invests \(\iff d_i > x\)

- Results:
  - National Intelligence \(\Rightarrow\) Countries invest for lower expected capabilities of the terrorists \((E[D|x] < 2C)\)
    - Does not imply more overprovision with Nat Int:
      \[ E[D|x, x] \leq 2C ? \]
  - If \(E[D] \geq 2C\): Nat Int \(\Rightarrow\) more overprovision
  - If \(E[D] \) "very low": Nat Int \(\Rightarrow\) less overprovision
Intelligence Sharing?

- Extend National Intelligence game by a communication stage:
  - Intelligence gathering
  - Communication stage
    - [Each country can send message to other country]
  - CT Investment decisions
Intelligence Sharing?

- 2 cases:
  - Cheap talk messages
  - Verifiable messages possible: Country $i$ can either credibly reveal $d_i$ or send no message

- What is most realistic?
  - Some pieces of intelligence can in principle be communicated verifiably, others not
  - Intel agencies reluctant to share details about sources and methods (Walsh 2009)

- Results:
  - Cheap talk $\rightarrow$ no revelation
  - Verifiable messages $\rightarrow$ full revelation
Intelligence is gathered on the national level

How does this affect domestic counterterrorism provision?

In particular: Does it make suboptimal provision due to negative externalities better or worse?
  - Unless $E[D]$ "very low": Worse!

Possibilities for credible intelligence sharing?
  - Only if verifiable sharing is possible!
Appendix: Figures

- If $E[D|x, x] < 2C$ (more overprovision with Nat Int):

- Sufficient condition: $E[D] \geq 2C$

- If $E[D|x, x] > 2C$ (less overprovision with Nat Int):

- Necessary condition: $E[D] < 2C$