

# The economic costs of terrorism

Robert Nowak
United Nations Economic Commission for Europe
Transport Division
Geneva

Expert Group on Inland Transport Security Geneva, 24-25 May 2007

#### Costs

• Terrorism raises transactions costs in the economy and shifts resources toward security activities

• Estimated to be significant but not very large relative to GDP

#### **Benefits**

- Security-related outlays aim at reducing the risk of incident and consequences should it occur
- The costs of anti-terror measures may be viewed as an investment

Need to balance both benefits and costs

#### Some statistics

- The total number of international terrorist attacks is falling; the peak of > 650 in 1988 to > 200 in 2004
- Suicide attacks proliferating, three incidents in 1980; in the 1990's on average 10 per year; since 2000 25 attacks per year
- Suicide terrorism is 3 per cent of all acts, but it accounts for one-half of deaths

## Loss of human and non-human capital

- The loss of life and loss of productive capacity of those killed
- The destruction of capital (buildings, equipment, infrastructure)
- · Rescue, clean up/repair costs

## **September 11, 2001**

- Direct costs estimated at \$20 \$60
   billion or 0.2 0.6 per cent GDP
- Rescue and clean up costs about \$11 billion

## **Increased uncertainty**

- Negative impacts on consumption and investment
- Stock market decline reduces consumption (through the wealth effect) and investment (a higher cost of capital)

### **September 11, 2001**

• Stock market loss of 17 per cent of GDP (temporary due to rapid and offsetting policy responses)

#### Additional costs incurred by certain industries/locations

•Some locations/industries suffer disproportionate economic and job losses

## **September 11, 2001**

•The insurance industry "lost" roughly \$50 billion

• Terrorist acts are intended to produce effects beyond the immediate physical damage

 Aim at inflicting long-term psychological consequences

## **Higher transaction costs**

 Travel delays, higher construction and insurance costs, additional informational requirements, more regulation, higher levels of inventories, tighter immigration restrictions

## Stress, anxiety, restrictions on individual freedoms

- Individuals willing to pay 50 and 70 per cent more for an airplane ticket if the risk of a terrorist attack reduced by 25 and 100 per cent (Viscusi and Zeckhauser, 2003)
- A resident of Northern Ireland would pay about 40 per cent of his income for a reduction in terrorist activities to the level of Ireland/Great Britain (Frey 2004)

## **Higher government security spending**

- The costs of diverting resources to security/military related activities
- A "negative" peace dividend that crowds out more productive activities
- Adverse effects on the private capital stock – lower productivity and reduced long run potential growth rate

**Estimates: US** 

• Becker and Murphy (2001): reduced GDP by 0.2 per cent because of lower investment

• The Council of Economic Advisers (2002): the level of output reduced by 0.6 per cent after five years

- •A doubling of incidents (1968-79) decreases bilateral trade between targeted economies by 6 per cent (Nitsch and Schumacher, 2002)
- •A month long disruption of U.S. Pacific coast ports, reduces Asian economies GDP by 0.4 per cent (Saywell, 2002)

Sectoral estimates: tourism

• Temporal effects: takes up to 24 months before tourism appears unaffected by a terrorist accident

## Some policy considerations: international co-operation

 All economies benefit from a more secure environment (international public good)

• If a country fails to take action – global/regional impact

Some policy considerations: international co-operation

<u>Challenge:</u> How to establish an effective framework for regional cooperation

- Joint action is more effective and cheaper overall; assist?
- Exclude from international transactions: penalize?

Some policy considerations: national

 Governments responsible for preventing terrorist attacks

• Private sector has the duty to take reasonable precautions

## Some policy considerations: national

**Challenge:** How to establish a co-op link between the public and private sectors

 Definition of "reasonable" standards, how to measure compliance, how to encourage information sharing (confidentiality), how to encourage private sector's participation, how to introduce market mechanisms to reward good behaviour