Security, Risk Perception and Cost-Benefit Assessment

Round Table Conclusions

Stephen Perkins
Security, Risk Perception and CBA, 11-12 Dec 2008

Chair Andrew Evans (Lloyd's Register Professor of Transport Risk Management, Imperial College London)

André de Palma (Paris School of Economics)
methodological issues in dealing with risk and security

Peter Gordon (University of Southern California)
economic impact analysis of terrorist events

Robert Poole (Reason Foundation)
the design of air transport security systems

Khalid Bichou (Imperial College London)
the design of maritime security systems.
Issues

- Transport Ministries take security extremely seriously and aim to deliver the highest standards of security
- Impact of uncertainty on assessment of security spending
- Potential of economic analysis to improve security policies
- Where are the highest returns for security measures
- How cost effective are current security policies
  - aviation
  - maritime shipping
Results

- Transport models valuable in estimating economic costs of terrorist attacks as network effects large
- Uncertainty versus risk
  - No objective probabilities can be determined for security – thin data, thick tail, terrorist response
  - Subjective probabilities from intelligence, insurance and predictive markets must be used
  - But neglected in current policies => can’t value benefits of security policies
  - Conducive to high, poorly targeted spending
- Many aviation and maritime security measures
  - not effective
  - do not represent value for money
Conclusions

- Use output rather than process oriented regulation
  - e.g. “red teams” for monitoring performance
  - not screening rates – easy to measure but little use
- Use risk profiling for air passenger screening
  - concentrates resources where needed
  - maintain random checks on pre-screened passengers
  - address political concerns of abuse and racial/religious discrimination
  - would achieve more security for the money spent
Conclusions

- Container screening
  - Current rate <1% of imports to Europe, 2% of exports to USA
  - 100% probably not feasible, not best target
    - detection rates are low
    - bulk, tanker and tramp shipping not controlled
  - Fixed costs are high
    - potentially discriminating against smaller ports
  - Cost effectiveness assessment lacking
  - Derogations to US Secure Freight Initiative requirements likely to be the norm because of difficulty complying