Economic Consequence Analysis of 9/11 and Beyond

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CREATE 9/11 Study

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• Consensus Estimate of Negative GDP Impacts:
  $71 billion to $138 billion (in 2020 dollars)
New York Times Economic Impacts of 9/11

How $3.3 Trillion Is Spent
Experts differ on some of these numbers, as well as what should be included in a tally. Here, no attempt has been made to account for some of the imponderables: for example, are oil prices higher because of the Iraq war? But it is clear that it was the nation’s response, rather than the damage from the attacks, that accounts for the bulk of the cost.
CREATE Economic Consequence Analysis Framework

Disaster Event Scenario

- Loss of Life
- Direct Economic Impacts
- Direct Remediation Costs

Resilience Adjustments

- Behavioral Linkages
- Ordinary Indirect Economic Impacts

Mitigation Costs

Spillover Effects

Total Economic Impacts
Economic Resilience

• Static/post-disaster version:
  - General Definition: Ability of a system to maintain function when shocked
  - Economic Definition: Efficient use of remaining resources at a given point in time to keep producing as much as possible

• Emphasis on GDP (Welfare) vs. Property Damage
  - Begins when the disaster strikes & proceeds until recovered
  - Economic Resilience is synonymous with business continuity
    - Operational Metric: averted business interruption losses as a % of potential business interruption losses
Measuring Economic Resilience of 9/11

- 95% of 1,100 WTC area firms relocated after 9/11
- If all of firms in the WTC area went out of business, direct business interruption (BI) loss would = $43B
- If all relocation were immediate, then BI = $0
- Businesses relocated 2 to 4 months, BI = $12B
- Resilience Metric: Avoided Loss ÷ Max Potential Loss
  \[ \frac{$31B}{$43B} = 72\% \]
Behavioral Linkages

- Off-site responses associated with behavioral changes (business, household, investor, worker)
- Emanates from social amplification of risk & stigma effects (media coverage, rumor)
- Fear feeds on itself & spreads; Translates to BI losses
- Can increase GDP loss by 1 to 2 orders of magnitude
- More than 80% of the GDP losses from 9/11 due to almost 2-year reduction in air travel & related tourism
Other Costs of 9/11

- Fatalities: 3,000; VOSL = $30 billion
- PTSD:
  - 8 to 12% of professional first-responders
  - 16 to 30% of volunteer responders
  - $5 to $8 billion for war veterans through 2008
- Other health: 17,000 people in WTC Health Registry
- Damage to the national psyche
- Cost of domestic anti-terrorism initiatives
- Cost of the war in Afghanistan?
- Cost of the war in Iraq???
Lessons Learned

- Resilience is a powerful second line of defense
  - Interdiction/mitigation still our first line of defense
  - Several resilience tactics effective, but depend on context
  - In 9/11, also included acceleration of return to normalcy

- Fear can get the better of us
  - Importance of accurate media reporting
  - Importance of truthful social media
  - Importance of government risk messaging

- Workings of markets => efficient resource allocation

- Fiscal & monetary policy play an instrumental role
References


