Transboundary food supply chain interruptions

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Supply-chain risk and vulnerability

• Natural, economic or political shocks
• Globalisation: ‘longer paths, shorter clock speeds’ (Saad/Kleindorfer)
• In European livestock sector 90% of soy is imported, high animal concentration amplifies outbreak
• No central regulator, private action dominates; public sector is ‘regulator of last resort’
• Food not internationally ‘securitised’ and therefore famine response late
• MENA countries seem extra vulnerable
• Power unevenly distributed across the chain
The Supply Chain Funnel in 6 European countries

Consumers 160.000.000
Customers 89.000.000
Outlets 170.000
Supermarket formats 600
Buying desk 90
Manufacturers 8.600
Semi-Manufacturers 80.000
Suppliers 160.000
Farmers/producers 3.200.000
Guiding supply-chain risk categorisation

• Svensson:
  – Atomistic vs. Holistic
  – Quantitative vs. Qualitative
Food sector

- Interdependence: perishability; immediate health impact
- All partners involved, increasing need for regulation
- Private firms have strict procedures; trend to vertical integration
- Neither companies nor governments may have adequate contingency plans coordinated with sector
- Governments rarely take into account that they are also chain leaders or chain members when there is no crisis.
- Intragovernmental competition: in NL, Agriculture trumped Health in Q fever scandal
Quality vs quantity issues

- **Quality**
  - Richer countries
  - Private regulation
  - EHEC, BSE, melamine, dioxin
  - Hard to trace
  - High stakes
  - Focus upstream (production)
  - Holistic agreements

- **Quantity**
  - Rich and poor
  - Public attention/regulation
  - Little ‘slack’
  - Wave-like impact: takes years
  - Infrastructure is key
  - Atomistic agreements
Improving chain coherence

• Neglect of *ex-ante* (precaution) vs. *ex-post* (recovery, compensation) co-ordination between links in chain

• Importance of nodes:
  – Small of the food trade hourglass: companies too big to fail?
  – Logistics: specialised and vulnerable (ports)

-> **Nodal governance**
Compare: international water regimes

- **Quantity (flood, low flow)**
  - Highly controlled
  - Limited # of Bottlenecks (infrastructure)
  - Strong role for governments

- **Quality (pollution)**
  - Some steps to ‘total control‘ in water company chains
  - Diffuse pollution and control
  - Scientific community, press as watchdogs
Some lessons…