Global food trade: reaping the rewards and managing the risks

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Global food security increasingly relies on international trade

52% in 1965

Share of global population with insufficient food supply

3% in 2005

Number of people worldwide dependent on trade for their food supply

1 bn

Share of global wheat, maize and soy production traded internationally

1/4
Today’s food system is a complex network of trade flows
Global trade is increasingly critical to food security

The infrastructural backbone of trade is punctuated by chokepoints

The strategic importance of these chokepoints is rising

Major chokepoint disruptions are rare, but not unprecedented

- **January 2016**: High water on the Mississippi severely restricts barge shipping.
- **August 2012**: Storm Isaac closes ports and suspends barge traffic on parts of the Mississippi.
- **March 2016**: Restrictions imposed on depth of ships passing through the Panama Canal, due to low water levels.
- **March 2017**: 3,000 trucks carrying soybean are backed up as road to port is swamped.
- **March 2016**: Dockworkers go on strike at largest port in South America.
- **June 2015**: Tailbacks of over 3,000 trucks build up in UK amid refugee crisis.
- **December 2014**: Russia limits loading of grain on to rail network to curb exports.
- **July 2014**: Ukraine orders closure of Crimean ports to international shipping.
- **July 2016**: Bosphorus Strait is shut for several hours during attempted coup.
- **November 2016**: Armed pirates board bulk carrier and abduct crew members.
- **April 2015**: Iran fires shots at and seizes cargo ship.
- **October 2016**: Missile launched from Yemeni coast damages UAE military ship.

*Bailey and Wellesley (2017), Chokepoints and Vulnerabilities in Global Food Trade, Chatham House.*
Climate change is multiplying the risk of chokepoint disruption

- Extreme weather events
- Wear and tear
- Political and institutional roadblocks
- Conflict and insecurity
- Demand
As yet, little effort has been taken to manage chokepoint risk

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<th>Lack of awareness</th>
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<td>Limited resources and political will</td>
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<td>Weak governance and institutional arrangements</td>
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Food-insecure, low-income countries are among the most at-risk
Many LIFDCs are highly exposed to breadbasket disruptions

Effective risk management will involve action on multiple fronts

- Integrate chokepoint analysis into mainstream risk management.
- Invest in infrastructure to ensure future food security.
- Enhance confidence and predictability in global food trade.
- Develop emergency sharing arrangements and smarter strategic storage.
- Build the evidence base around chokepoint risk.
Chokepoint risk matters to the SDGs in a number of ways
Thank you

Chatham House Report
Rob Bailey and Laura Wellesley

Chokepoints and Vulnerabilities in Global Food Trade

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Chokepoints in global food trade: Assessing the risk
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ABSTRACT

The global disaggregation of food supply chains and just-in-time business models with low inventories mean that governments, traders, producers and consumers are increasingly exposed to sudden disruptions to supply and associated volatility in food prices. While considerable research has examined the risk of disruption in global energy markets resulting from a disruption to physical chokepoints along major trade routes, no comparable analysis has been undertaken for agricultural commodities. Here we present the Chatham House Maritime Analysis Tool (CH-MAT), which estimates the volume and value of staple foods passing through maritime chokepoints. The CH-MAT permits analysis of flows through chokepoints arising from natural trade in commodities over the period 2000–2015. The value of the CH-MAT is illustrated by a first assessment of global flows via maritime chokepoints. We discuss how such data can be combined with information on inland and coastal transport networks, strategic reserves and environmental change, to enhance understanding of the risks associated with disruption to critical infrastructure – owing to weather events, trade restrictions, conflict, competition or institutional factors. We consider the implications within risk management frameworks and...