

# Production Networks and War

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  - Within-country estimates (e.g., DiD/SC, Abadie and Gardeazabal, 2003) may underestimate total cost
- So far, little evidence of spillovers on firms
  - Propagation of demand shocks, supply chains disruptions, ...
  - Critical dimension for middle-income countries

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- Data on the **universe** of **firm-to-firm** railroad shipments, 2013–2016
  - Allows to track the production network before and after the war began
  - Railroads are the main way of transporting products within Ukraine

# 2014 Annexation of Crimea and Donbas War



# Preview of the Findings

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1. Document and quantify **propagation effects**: war reduces trade not only with directly affected firms but also with their buyers and suppliers
  - First-degree effect:  $\downarrow$  73% of pre-conflict average
  - Second-degree effect: 1/4 of the first-degree effect
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3. Estimate *aggregate* impact of **network destruction** (removal of firms) vs **network adjustment** (by remaining survivors) on firm revenue distribution
  - Production networks model to distinguish the effects
  - Network destruction reduces median revenue in non-conflict areas by 47%
  - Network adjustment compensates for 80% of that decline