

# The Trade Credit Clearinghouse: Liquidity and Coordination Failure

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[Link to the draft.](#)

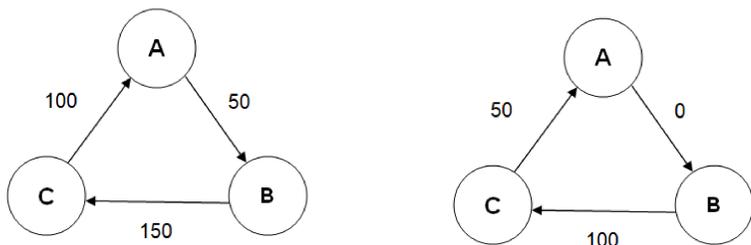
## Trade Credit is a Major Source of Risk

- Trade credit is the biggest source of short term financing for firms.
- Source of liquidity spillovers: **delayed payment** and **default** of trading partners
  - Real effects: bankruptcy, investment, employment, ...
- Large policy issue: EU Late Payment Directive (2002, 2011), COVID-19 relief packages

We study the effects of a unique policy designed to alleviate these spillovers - a trade credit clearinghouse.

## The Trade Credit Clearinghouse was recently implemented in Bosnia and Herzegovina

- Firms required by law to report late debt.
  - They report the identity of the creditor and the debt due date.
  - Late debt reaches up to 15% of GDP.



The debt network **before** clearing. The debt network **after** clearing.

- The clearinghouse uses this information to perform **gross multilateral netting** of debts.
  - each firm can exactly offset its payables with its receivables provided it is in a debt cycle (circle).
- Cleared around 10% of GDP during 5 years of operation.

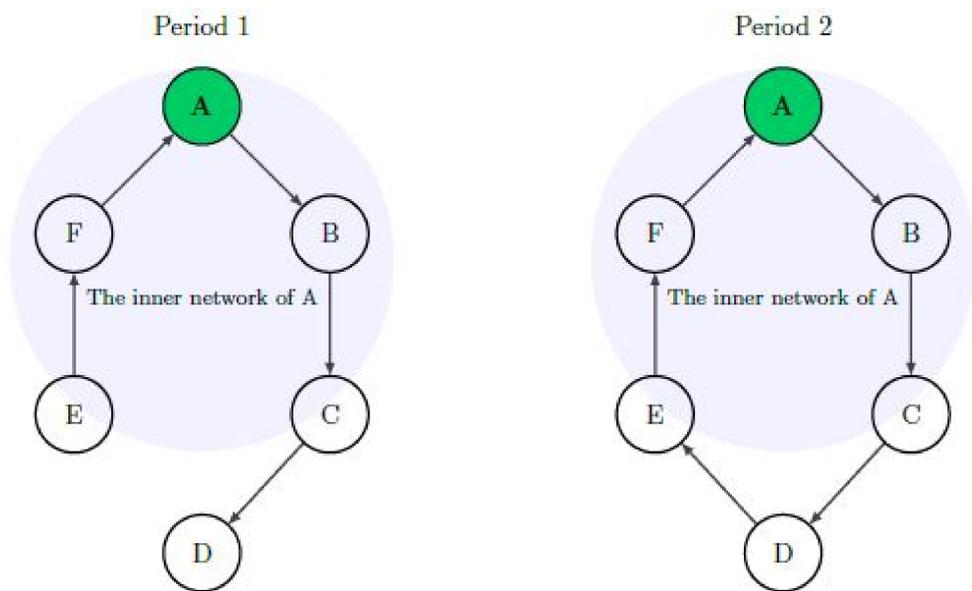
## Research Question

What is the effect of clearing on firm financial and economic decisions and why?

## Novel Empirical Design

- Changes in the debt network that are far away from firm  $i$  are exogenous to firm  $i$  but they affect  $i$ 's clearing.
  - able to identify this because we replicated the clearinghouse algorithm and have the debt network data
- We define "far away" as actions of the node separated from  $i$  by two other nodes.
  - similar to the "friend of friend" assumption in social network literature (e.g. Bramoullé et al, 2007)

Example of the treatment group:



Firm A doesn't get cleared in Period 1, but gets cleared in Period 2 because now there is a debt between firm D and E. Under our identification assumption this change in debt between D and E is exogenous to firm A.

**Testable implication:** this variation is unrelated to 30 pre-treatment observables → plausibly exogenous

## The Clearinghouse is an Exchange Mechanism

- clearing allows firms to use (potentially) illiquid receivables as a means of payment
  - helps avoid default due to late payment or default of trading partners
    - most users are SMEs that have little access to the financial sector
- we find that **clearing reduces default by 6%** on average.
- the effect is bigger for **cash poor and financially distressed firms**
- clearing has **real effects**
  - investment and sales increase
  - cash rich firms reduce their precautionary cash holdings and increase investment

## The Clearinghouse is a Coordination Technology

- potentially **very costly to gather information in a decentralized manner on a complex debt network**

How to test this idea?

- simple cycles of 3 can be more easily netted by firms communicating
- firms in complicated networks will have trouble coordinating

Evidence:

- we find that **clearing is less beneficial for firms that are in circles of 3**
- **firms surrounded by many links benefit more** from the clearinghouse

## How do we contribute?

First to analyze the effects of a policy experiment that might have sizable real effects and that could be implemented in many countries.