



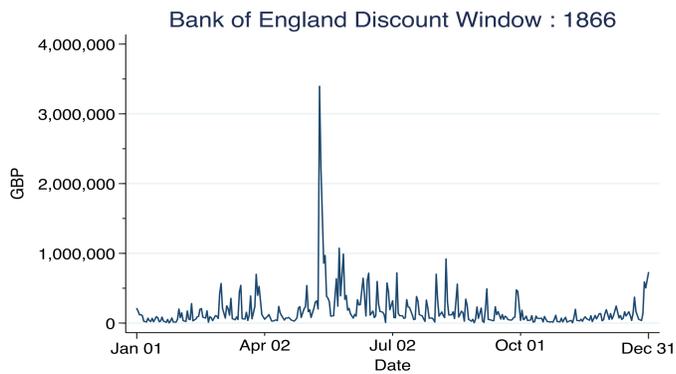
Financial Frictions in Trade: Evidence from the Banking Crisis of 1866

Chenzi Xu, Harvard University

How does the supply of credit affect real economic outcomes?

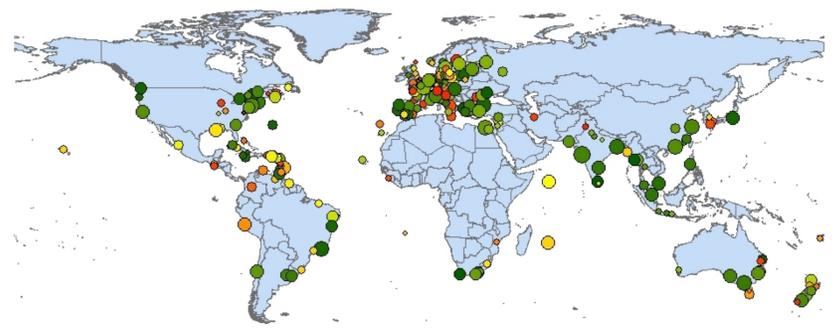
The unexpected failure of Overend & Gurney on May 10, 1866 led to runs on many banks headquartered in London. Crucially, these were primarily mercantile banks that operated abroad with the express purpose of providing trade credits. This project analyses the impact of the contraction of British banking capital in cities around the world on international trade.

Overend & Gurney Failure: May 11, 1866



Data: Ledger from Bank of England Archives

Geography of Trade Credits: 1866



- Multinational banks discount bills at Bank of England
 - Some banks fail or suspend operations

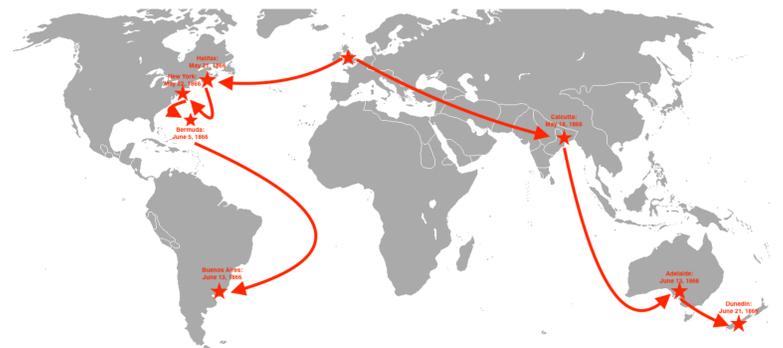
Distribution of pre-crisis trade credits (size)
Severity of credit contraction in cities (colour)

Trade Outcomes: Lloyd's List

- Daily shipping activities from Ports around the world
- Ports geo-coded and matched to cities with trade credits from Britain
- Lag between Lloyd's reports and date of shipping used to construct measure of news lag time



Communication Lag



Credit should only be affected after receiving news from London

Identification:

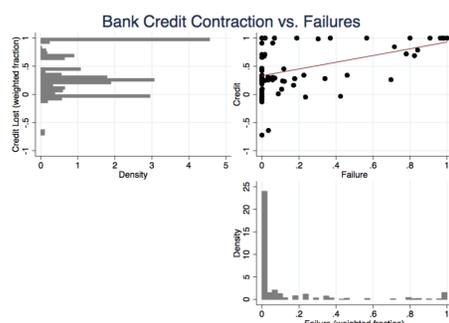
- Continuous treatment Differences-in-Differences: Compare cities before & after the news arrival based on severity of credit contraction
- Using news arrival as the "event" date strengthens the causal interpretation

OLS: Direct measure of credit contraction: bank balance sheets of credit supplied in December 1866 relative to December 1865

$$y_{it} = \alpha + \delta(\Delta Credit_{it}) + \gamma News_{it} + \beta(\Delta Credit_{it} * News_{it}) + \theta_t + \lambda_c + \nu_{gt} + \epsilon_{it}$$

FEs: month, year, country, geographic region

First Stage: "failures" are closures or suspensions



IV: Instrument for credit contraction with shocks to headquarters in London after May 11. Shocks to the London headquarters of banks are distributed randomly relative to a city's pre-crisis composition of Banking relationships

Main Results:

Table: Ships sailing from Foreign ports

	Reduced Form (1)	OLS (2)	IV (3)
Failure*News	-2.156*** (0.962)		
Credit*News		-2.000*** (0.831)	-2.568*** (1.285)
Constant	7.423*** (3.573)	6.888** (3.674)	8.392*** (3.642)
N	4085	4071	4071
Clusters	186	185	185
R ²	0.406	0.403	0.386

FEs: Month, Year, Country, Region x month

Conclusion:

- Shocks in London increased cost of financing
- Shipping activity in foreign cities contracted by 20-30%
- Supports recent evidence that banks are a relevant channel for transmitting financial frictions into real economic outcomes