Discussion

The Macroeconomics of Trade Credit

by Luigi Bocola and Gideon Bornstein

Eduardo Dávila

Yale and NBER

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This Paper

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  - Focused on financial institutions/banks
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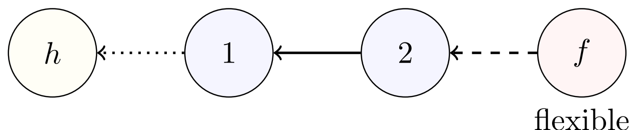
  2. It can *dampen* or *amplify* financial shocks
- Elegant framework + Careful quantification

Outline of Discussion

1. Revisit model
2. Summarize main insights
3. Comments/Remarks

Model

- **Household**: consumes final goods + supply labor
- **Final good producers**: use N_i intermediates and capital (competitive)
- **Intermediate good producers**: use labor to produce intermediate (monopolistic)



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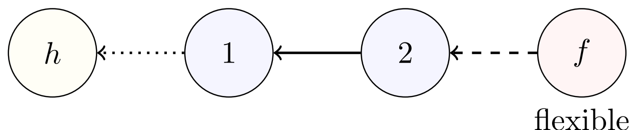

- **Banks**: extend credit to both producers

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- **Remark #1:** full bargaining power to int. good producer
  - p's are *payments* not prices
- **Remark #2:** related to *working capital* channel
  - Difference is that trade credit comes from supplier

Financial Frictions

- Borrowing from banks:

$$b_{ij,t} \leq \underbrace{(1-\theta_t)}_{\text{enforceable}} \underbrace{[1-\delta(1-\pi_i)]}_{\text{afternoon}} \underbrace{p_{i,t} y_{i,t}}_{\text{revenue}} \quad \text{and} \quad b^x_{ij,t} \leq \underbrace{(1-\theta_t)}_{\text{enforceable}} \underbrace{p^{\text{tc}}_{ij,t}}_{\text{trade credit}}$$

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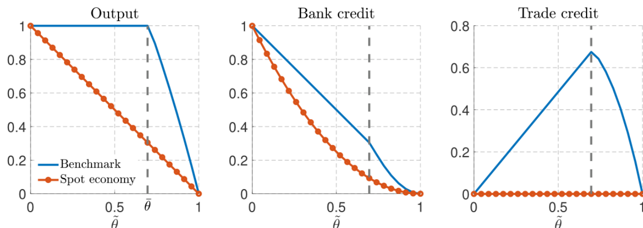
- Financial shock: θ_t is random $\Rightarrow$ Only shock of the model
  High $\theta \Rightarrow$ worse financial frictions

Key Insight #1: Output

- Spot vs. trade credit economies
  1. Trade credit economy features higher output than spot economy
     - Can reach first best (if financial frictions are mild enough)
  2. Trade credit economy sustains more bank credit than spot economy
     - Credit multiplier: trade credit can be (partially) pledged with banks
       Liquidity multiplier (similar to HT97)



Key Insight #2: Amplification vs. Dampening

- When financial frictions are mild (θ is low)
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  - Bank and trade credit are substitutes
- When financial frictions are tight (θ is high)
  - Trade credit amplifies output drop
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- Quantitative analysis in calibrated model (Italian firms)
  - Trade credit supports **14%** more output
  - Trade credit responsible for **45%** of Great Recession output drop

    Large because many firms are constrained

Comments/Remarks/Questions

1. **Maturity of trade credit**
   - Most trade credit is typically 30/60 days
   - Bank credit is typically of longer term
     - Collateralized vs. uncollateralized
   - Do these forms of credit interact (as complements/substitutes) with each other?
   - How important overall is credit <30 days?

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2. **Impact of other (non-financial) shocks**
   - The paper exclusively consider "financial shocks", modeled in the form of a tightening of bank borrowing conditions
     - Change in θ
   - One would expect *real shocks* to be dampened in economies in which trade credit is feasible
   - Can the paper explore shocks centered around trade credit?

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3. **Normative insights**
   - The paper has a Section 4.4 on corporate subsidies
   - I would love to see more on the normative side!
   - This economy features efficiency losses coming from
     - Aggregate factor use (labor wedges)
     - Cross-sectional intermediate input use
   - It would be useful to formally decompose these channels

     Welfare accounting (Davila/Schaab 2023)

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4. **Richer production and financial network structures**
   - Paper assumes particular production structure
     - One layer of pure intermediates
   - Structure of production/financial networks has to matter

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5. **Relevance of liquidity multiplier**
   - How large is the multiplier effect of trade credit?
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6. **Difference between intermediate inputs and factors**
   - We all offer trade credit to our employers (i.e. get paid at end of month, week, ...)
   - Is there anything special about intermediate inputs?
     - Could we write the model with just one layer: trade credit from factor/labor suppliers?

Conclusion

- Very nice paper on the role trade credit with financial frictions
- Valuable conceptual insights and careful quantification
- Still room to do more!