Debt and Export Dynamics

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Credit and Export Dynamics

- Credit in the life cycle of the firm
  - Does credit restrict firms' growth?
  - Does it only affect those that are expanding their size?
- Usage of credit by exporters
  - Pre-financing of export—i.e., cash-cycle between dock and payment?
  - Finance entry cost to new export markets?
- Firms activities during credit crunches
  - Do they affect small and/or large firms?
  - How do they affect exports?

Research agenda based on Peruvian data

- Firm level data on exports and credit in Peru
  - Universe of customs data
  - Universe of outstanding debt in each bank
  - No data on domestic activities

- Peru is a commodity exporter
  - Large export share in mining but corresponds to few large firms
  - More exporter firms in agriculture, fishing, and textiles

- Peru banking sector is fully liberalized
  - Global and domestic commercial banks
  - No public banks lending to firms directly
  - No significant equity and public bond markets for most exporting firms

What do we do?

1. Analyze the dynamics of credit and exports of individual firms
   - Evolution of debt around time of entering export market
   - Debt to export ratio when firm expands or is already mature
2. Analyze how firms adjust exports after a credit crunch (2008-2009 crisis)
   - Challenge: differentiate effect of credit crunch from decline in world demand
   - Our approach

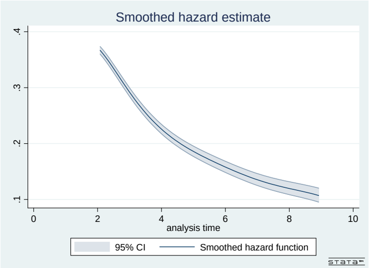
     $\rightarrow$ Identify exposed banks: those borrowing from abroad

     $\rightarrow$ Exposed banks cut lending more than non-exposed banks

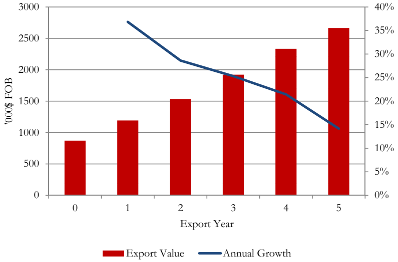
     $\rightarrow$ Compare exports of same product and to the same destination by firms borrowing from exposed and non-exposed banks

Exit and entry of new firms into export market

- Firms that enter/exit the export market account for very little
  - ▸ New exporters are more likely to exit
  - ▸ New exporters start small
  - → But they grow fast conditional on surviving



(a) Probability of exiting



(b) Exporting for more than 5 years

Credit shocks affect exit/entry of young and small exporters

- Exit doubled during 2008-09 crisis
  - Concentrated among small exporters
- Most exit was not due to credit crunch
  - Drop in international demand and price of commodities
- Still, exit rate was higher for firms borrowing from exposed banks
  - Among small firms: exit was 11% higher among borrowers of exposed banks
  - Effect much smaller for larger firms

→ Takeaway: Credit shocks trigger exit of small firms

  - They do not account for a large share of aggregate exports
  - But, if conditions persist, we are missing firms that grow fast
  - Still to answer: will these firms re-enter?

Firms use credit to finance working capital

- Firm credit grows (and declines) with exports
  - No peak in credit at time of entering the export market
    $\rightarrow$ No suggestion that firms use credit to enter an export market
  - No peak around moments of high growth
    $\rightarrow$ No suggestion that firms use credit to expand

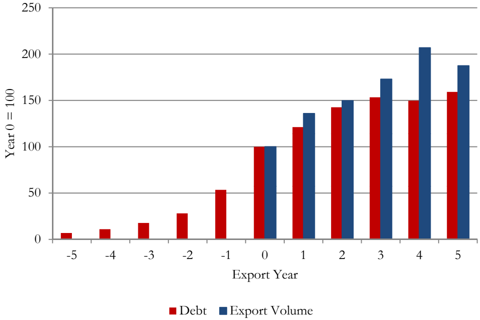


Figure: Firms exporting for more than 5 years

Credit shocks affect quantity exported by firms of all ages/sizes

- Quantities exported dropped for surviving firms during 2008-09 crisis
  - Decline was general: Affected large and small firms
- Most drop in export was not due to credit crunch
  - Drop in international demand and price of commodities
- Effect of credit crunch on aggregate exports is noticeable
  - Drop in exports was 13% worse for firms borrowing from exposed banks
  - It affected large and small firms

→ Takeaways: Credit shocks affect exports by firms of all sizes

  - Because it affects large exporters, it has sizeable effect on aggregate exports
  - It affects mature firms: credit used for general production
  - We need to think of credit as another factor of production

We do not think credit crunch especially affects exports

- Credit crunch did not affect differently exports of longer cash-cycle
  - Distance: it takes longer to export to far away markets
  - Pre-paid: exports prepaid by importer do not require prefinancing

→ Takeaway: Credit crunch did not affect firms' ability to finance time between dock and payment

- Export credit was always available during credit crunch
  - Banks prioritize export credit
  - Government provides guarantees

→ Takeaway: The effect of credit crunch on exports was due to decline in general credit to finance working capital for production

Conclusions

- We should think of credit as a factor of production
  - Credit has the same dynamics as production
  - If credit is more expensive, all firms produce less
  - For small firms, close to break-even, more expensive credit may imply abandoning the export market
- No evidence that main role of credit is to finance expansion (growth)
  - Physical capital is mostly financed with retained earnings
  - That is why quantities exported by large and small firms are similarly affected
- No evidence that credit crunch affects pre-funding of exports
  - Export credit is the last one to decline
  - Safe for banks and prioritized by government