Discussion of Bustos, Garber & Ponticelli: Capital Allocation Across Regions, Sectors and Firms

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ESSIM Meeting
Roda de Berà, May 25, 2017

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    - Exploit regional variation in technology "shock" in agriculture.
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2. Link credit access to Structural Change (SC)
    - $\uparrow$ employment in manufacturing & services
    - Reduced form: $\uparrow$ agri. productivity $\Rightarrow$ $\uparrow$ non-agri employment.
        - Change relative price agri. vs. non-agri
        - Typical explanation: through technology, $\frac{A_{agri}}{A_{nonagri}}$ (also present).
        - Here: through a reduction in cost of capital/funds.

Empirical Strategy: Tech Adoption and First Stage

- Documenting technology adoption: very credible.
  - Suitability predicts very well technology adoption.
  - Why not look at maize also?
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- **Tricky** part: compute growth in *bank* deposits to assess effect on destination.
- How good of is the log approximation?
  - Is the approximation error correlated with observables?
  - Seems that the error will be bigger where there is more variation which may be a concern.

Empirical Strategy: Second Stage

- Use two instruments
  1. For intensive margin: firm's exposure to bank
  2. For extensive margin: municipality exposure
- Exclusion restriction: $\uparrow$ bank "funds" is orthogonal to firm credit demand.
  - Focus on firms operating in non-soy producing regions.
  - Exclude firms operating in sectors directly linked to soy (using IO Table).
- Expositional: can you show that firms and banks "treated" vs. "nontreated" look similar in other dimensions?

  most of it taken care of in the intensive margin estimation because firm FE but not in extensive, (eg, new banks better at identifying high growth opportunities –FE takes care of this but matters for interpretation, young and old)

Empirical Strategy: Second Stage II

- Concern when using "municipal" credit shocks:
  - This technology is labor saving
  - Workers migrate to non-soy producing regions
- Overcome this problem by:
  - Using administrative data on the credit and employment relationships for the universe of formal firms.
  - Compare firms in the same municipality, sector, with different pre-existing relationships with banks with different exposure.
- . . . but hard for linking to "macro" SC.

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    - Can report which fraction of increase in funds in agri regions is channeled to non-agri.
- Link to Structural Change: SC is about trends,
    - Results compare firms in a municipality with different credit access.
    - Can quantify it $\simeq$ at the municipal level, but trends are partialled out...
    - Better banks select fast growing firm/opportunities?

Model

- **Key Ingredients** to rationalize mechanism that is identified:
    1. Δ cost of capital
    2. Non-agri. sector's demand of capital is more elastic.
        - $\simeq$ assumptions to rationalize effects of tech. adoption
- Not clear to me that I would push this for SC (but happy to be persuaded!).
- The key mechanism seems to hold independently of SC.
- Towards an SC theory...
    - In open economy model, disconnect between production and consumption in tradables.
    - Employment shares $\neq$ Expenditure shares.
    - SC in manu and agriculture production only driven by relative int'l prices
    - In services still link, both relative prices and income matters.
    - How does this bind together?

Model: An Example*

- World composed of **banks** and **firms** in different locations.
- Firms:
  - Agri and non-agri
  - Sell in world market (price takers)
- Banks:
  - cannot lend to each other
  - have a fixed customer base
  - $\sim$ what drives identification in the empirical model
- Consider a bank lends to a firm in city and in agriculture
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- Assume: K is a relatively strong complement to production in agriculture (think Leontief in capital, land and labor)
- Technology adoption in agriculture...

$$F_{Traditional}(K, L, Land) \rightarrow F_{Agri}(K, L, Land)$$

  . . . generates profits that are not reinvested $\rightarrow \uparrow$ deposits
- Banks cost of funds $\downarrow \Rightarrow \uparrow$ capital (mostly) in non-agri.

Framing of the paper

- Perhaps, I would change the initial paper pitch.
  - The way I think about generating SC is either through relative prices or non-homothetic effects.
  - Financial frictions affect both indeed, but I would not put them on the same "level" as the previous two in the intro.
  - This paper focuses on the price distortions through the effect on the price of capital.