Discussant Comments


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Exporting and Productivity

- Firm exports and productivity – one of the most extensively examined relationships in trade literature

- General findings from trade literature: “Exporters more productive than non-exporters”
  - Do firms learn-by-exporting (LBE) that makes them more productive? i.e. Does exporting have a causal impact on productivity?
  - LBE hypothesis – cited as the basis for policy interventions geared towards export promotion
    - But does LBE hold? Literature inconclusive.
Exporting and Productivity

- Melitz (2003) ➔ export behavior and productivity through self-selection
  - As trade costs decline, only the more productive firms are in a position to expand and they self-select into export markets, whereas the less productive firms exit the market.
  - LBE for developing economies – ‘Mixed.’

  “The standard models of modern trade theory… are based on the notion that firms are heterogeneous, productivity is immutable, and the most productive ones self-select themselves into exporting. If this model is correct, then policy interventions are futile as firm productivity cannot change” (Gupta et al., 2015, p.1)

➔ Focus of this paper: Self-selection and LBE in India
Exporting and Productivity

- The closest paper in spirit to Gupta et al. (2015) is Mukim (2011).

<table>
<thead>
<tr>
<th>Study</th>
<th>Country</th>
<th>Sample</th>
<th>Methodology</th>
<th>Evidence* ω̂ &gt; ω̂′′</th>
<th>LBE effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aw and Hwang (1995)</td>
<td>Taiwan</td>
<td>2,832 firms; 1986</td>
<td>Translog production function, cross-section</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>Bernard and Wagner (1997)</td>
<td>Germany</td>
<td>7,624 firms; 1978-92</td>
<td>Panel Data</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Bernard and Jensen (1999)</td>
<td>US</td>
<td>60,000 plants; 1984-92</td>
<td>Linear probability with fixed effects</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Kim (2000)</td>
<td>Korea</td>
<td>36 sectors; 1966-1988</td>
<td>Translog production function; cross-sections</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>Delgado et al (2002)</td>
<td>Spain</td>
<td>1,766 firms; 1991-96</td>
<td>Nonparametric analysis of productivity distributions</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>Wagner (2002)</td>
<td>Germany</td>
<td>353 firms; 1978-89</td>
<td>Panel data; Matching</td>
<td>✓ ✓ ✓</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>Alvarez and Lopez (2005)</td>
<td>Chile</td>
<td>5,000 plants; 1990-96</td>
<td>Ordered probit; pooled data</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Baldwin and Gu (2003)</td>
<td>Canada</td>
<td>8215 firms; 1974-1996;</td>
<td>System GMM; Cross-sections</td>
<td>✓ ✓ ✓</td>
<td>✓ ✓ ✓</td>
</tr>
</tbody>
</table>
Novelty of Gupta et al. (2015)

- Uses Prowess data of large Indian manufacturing firms between 1994 and 2014.

- Time period covers firms transitioning from domestic market to exporting – permits analysis of firm productivity using “before and after” (exporting) event study.

- Sample: 8275 firms; 3510 non-exporters (sustained)
  - Propensity score matching (PSM): export starters to non-exporters.
Summary of Key Results

- Export-Starters are:
  - Bigger in size
  - Younger in age
  - Better in paying higher wages
  - More productive prior to exporting

- No “conscious” effort to improve productivity before exporting.

- Exporting has positive impacts on size.

- No evidence of LBE

- Consistent with Melitz model – More productive firms self-select; Firm productivity is “immutable.”
Comments/Questions

- **Data →** 1994-2014. Is it robust to sub-periods?

- **Table 2 →** How are the various categories used in the empirics? Not clear.
Methodology:

- Olley-Pakes (OP) method to estimate TFP as robustness?
  - Intermediate inputs (Levinsohn-Petrin) vs. investment (OP) to control for simultaneity between inputs and outputs?
  - Controls for the endogeneity of firm exit by computing survival probabilities for the firm
  - LP procedure uses value added data? – Sales rather than output/production?
Methodology:

Caveats about PSM techniques should be highlighted. Du et al., 2011 (p.11):

- “Conditional Independence” for the variable of interest, i.e., exporting decisions of non-exporters are randomly made conditional on the full set of observable characteristics of the firm – strong assumption.

- Propensity score obtained only on the basis of observable firm characteristics. Assumes away possible problem with the error terms – endogeneity and/or measurement error.

- Estimates provides productivity differential between exporters and non-exporters within a given industry, and says nothing about the within-firm effect of exporting on productivity.
Methodology:

  - Instrument that affects firm productivity only through its effect on the firm’s decision to export, and which would be exogenous to changes in firm-level productivity
  - Instrument: Effectively applied tariffs faced by exporting firms
Any effects of financial constraints on exporting performance?

Are exporters able to get more credit for expansion? During crises, export-oriented firms are less credit-constrained than non-exporters?
Exporters grow more than non-exporters but no productivity increase -- this implies that they grow by increasing inputs, i.e. hiring more resources?

Can we tell if they are more or less labour intensive than non-exporters? Since wage bill rather than number of workers is used -- do we know if exporters actually hire more or pay higher unit wages?
Policy ➔ If exporting leads to greater growth and given the existing labor market and other rigidities that limit firm growth in India, in this second best world what would the policy suggestion be?

- Concluding section is weak on policy implications.
References


Thank You!