"It Takes More Than One Moment..." Discussion

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Summary

- Estimate country-sector-year gravity model
- Explain country fixed effects with productivity distribution
  - Does the distribution help explain exporting behavior? (YES)
  - Which productivity distribution fits observed exporting behavior? (log normal)
- Angles to view contribution:
  - Open the black box "gravity equation"
  - Better understand drivers of trade flows
How to interpret these results?

- Correlation of firm productivity distributions to exporting country fixed effects
- How causal can we interpret these results?
  - Omitted variable bias is not addressed
  - Simultaneity is not addressed
  - Identification comes solely from structural assumption
- Additional control variables?
- More precise derivation of the implied relationship?
Discussion of Method

- Estimate country-sector-year gravity model
- Explain country fixed effects with productivity distribution
  - Given the proposed model, is a fixed effect correct?
  - Productivity distribution is known
    - Use model to determine functional form of effect
    - The same distribution faces each export country
Discussion of Method

Table: Testing hypothesis

<table>
<thead>
<tr>
<th>Distribution</th>
<th>Theory</th>
<th>Empirical Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Comparative Statics</td>
<td>Mean</td>
</tr>
<tr>
<td>Pareto</td>
<td>( \frac{d l_i}{d k_i} &lt; 0; \frac{d \text{skew}}{d k_i} &gt; 0 \rightarrow )</td>
<td>( \beta_2 = 0 )</td>
</tr>
<tr>
<td>LogNormal</td>
<td>( \frac{d l_i}{d \mu_i} &gt; 0; \frac{d l_i}{d \sigma_i^2}, \frac{d \text{skew}}{d \sigma_i^2} &gt; 0 \rightarrow )</td>
<td>( \beta_2 \neq 0 )</td>
</tr>
</tbody>
</table>

- Identification of distribution relies on \( \beta \neq 0 \)
- This is much more likely than \( \beta = 0 \) ex ante
- Biased towards log normal?
- Yet, can confirm log normal with firm level data

"It Takes More Than One Moment..." Discussion