Discussion of:
The Quality-Complementarity Hypothesis: Theory and Evidence From Columbia

Michael E. Waugh
Federal Reserve Bank of Minneapolis
New York University

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Summary: Model and Data Qualitatively Consistent

Model: Melitz (2003) + a model of output and input "quality".

- Observable implications:
  - Positive correlation between output price and size.
  - Positive correlation between input price and size.

Data: Unit values for outputs, inputs, and size for the universe of Columbian manufacturing plants.

- Results:
  - Positive correlation between output unit value and size.
  - Positive correlation between input unit value and size.
  - Industries with more scope for "quality" more positive correlations.

Size-Input Premium is Compelling

Size-input premium:

- Larger plants pay higher prices than smaller plants for inputs with the same observable characteristics.

Very similar to size-wage premium (which they find as well):

- Larger firms/plants pay higher wages than smaller plants/firms to workers with the same observable characteristics.
- Brown and Medoff (1989) and Oi and Idson (1999)

Their model provides an explanation for both

- But what about existing and alternative theories of size-wage premium?

Is the Size-Input Premium First Order?

Coefficients from regression of size/output on input unit value seem small.

Question: How much more is a plant the size of the average exporter paying for inputs than a plant the size of the average non-exporter?

- Size: Average Exporter = 193, Average Non-Exporter = 56.
- Coefficients $\Rightarrow$ Exporter pays: 1.5% more on inputs,
18% more to workers.

Implications for Trade are (Potentially) Different

Inputs are reproducible and traded, labor is not.

Trade liberalization $\Rightarrow$

- High quality inputs cheaper $\Rightarrow$ higher quality output.
  - Additional source of gains from trade?

- But quality of labor is fixed (in the short run) $\Rightarrow$ constraints on the ability to produce higher quality outputs.
  - Dampen the gains from trade?

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Formal implications of trade liberalization should be derived using the model.

- At least qualitatively. Quantitatively — even better.

I Believe in the Story — See My Own Work

Waugh (2009): Human Capital, Product Quality, and Bilateral Trade

- A simple model of technology adoption:
  - Producers make *decisions* regarding the quality of inputs given the human capital of workers in that country.
  - Quality of inputs = technology.
- Result:
  - Producers with high human capital workers chose high quality inputs ⇒ similar correlations between wages and input prices.
  - Accounts for 90 percent of the variation in bilateral trade; twice the amount relative to alternative models

Summary of My Thoughts

I believe the story and size-input premium is compelling.

- Their paper is a unique contribution in this dimension.

But size-wage premium seems first order.

- The numbers suggest this.
- Policy implications for labor markets seem different.