

# Self-Employment in the Global Economy

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Discussion by:  
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## What Does this Paper Do?

Documents interesting empirical link between self-employment in manufacturing industry and degree of openness in an economy

- Aggregate cross-country data
- U.S. industry-level manufacturing data

Paper formalizes link in a theoretical model

- Builds on Lucas (1978) and Melitz (2003)
- Theory culminates with Propositions 1 & 2
  - $\downarrow$  openness (via trade costs)  $\Rightarrow$   $\downarrow$  exports &  $\uparrow$  self-employment

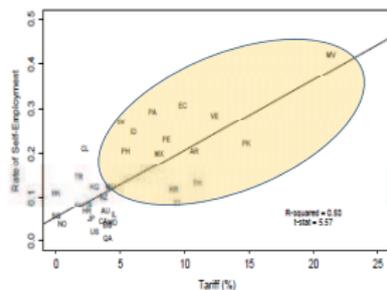
Take theoretical predictions to the data

- Authors find supportive evidence in U.S. manufacturing data using simple econometric framework

## Two Main Comments

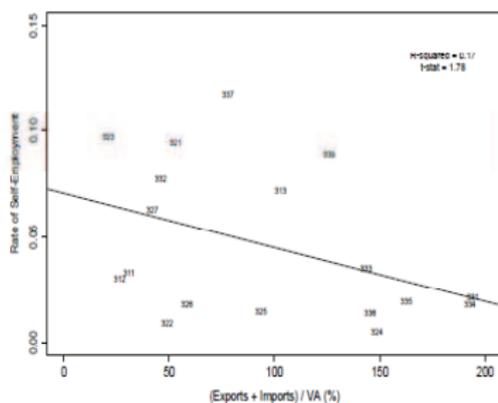
- Authors need to make a more significant case that self-employment is interesting from the perspective of the aggregate economy
  - 10% of total U.S. employment (15 million jobs) is surprisingly large ...
  - ... but, what fraction of total output does this represent?
- Theory doesn't differentiate between self-employment and firm size
  - Critical for matching facts on firm-level international trade ...
    - Bernard, Jensen, Redding, and Schott (2007)
  - ... therefore necessary for theoretically-motivated empirical analysis.
    - Is self-employment simply a proxy for small firm size?

# Cross-country evidence on self employment



- Cross-country evidence dominated by emerging market economies
  - Institutional differences that influence optimal firm size?
  - Higher incidence of home production / non-market activity?
  - Robust to alternative measures of openness?

# Cross-industry evidence on self employment



- **Suggestion:** Focus exclusively on link between self-employment and openness at the industry-level
  - Model is about trade at the firm level
  - All the empirics are done using U.S. industry level data

# A model of openness and self-employment (I)

- *Closed economy setting*

- Monopolistically competitive firms produce using labor only
- Each agents receives an idiosyncratic productivity draw,  $\varphi(j)$ 
  - If  $\varphi(j) < \bar{\varphi}_d$ , become a production worker
  - If  $\varphi(j) \geq \bar{\varphi}_d$ , become “self-employed” and run a firm
  - Most productive become self-employed; hire everyone else
- $\uparrow$  product differentiation  $\Rightarrow \uparrow$  monopoly rents  $\Rightarrow \downarrow \bar{\varphi}_d$ 
  - Self-employment becomes more attractive relative to sunk cost of foregone wage that you could have earned as a production worker

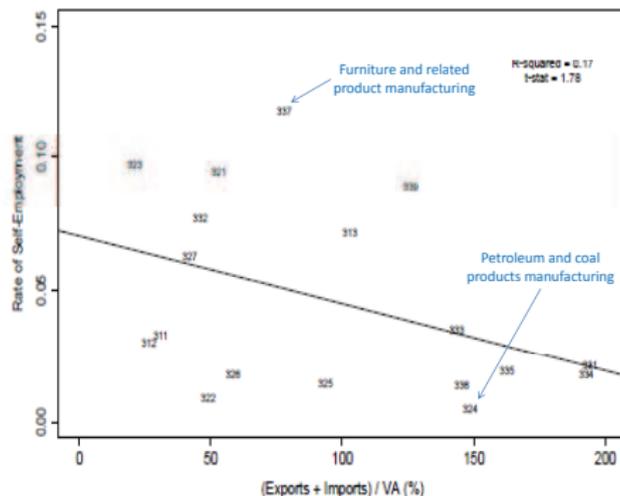
- *Question:* What do the authors mean by “self-employment”?

- *Entrepreneurs* have good ideas/skills and exploit them by starting firms, hiring workers, and growing the firm
  - Lucas (1978) was a theory of the distribution of firm size
- *Self-employed* are a type of entrepreneur, but tend toward smaller firms
  - Hipple (2010) reports 2/3 of self-employed are unincorporated

## A model of openness and self-employment (II)

- *Open economy setting*
  - Introduce fixed and variable cost of entry into the export market
  - Idiosyncratic productivity draw,  $\varphi(j)$ ; two cutoffs:  $\bar{\varphi}_d \leq \bar{\varphi}_x$ 
    - $\varphi(j) < \bar{\varphi}_d$ , production worker
    - $\bar{\varphi}_x > \varphi(j) \geq \bar{\varphi}_d$ , self-employed domestic producer
    - $\varphi(j) \geq \bar{\varphi}_x > \bar{\varphi}_d$ , self-employed exporter
    - Most productive become self-employed exporters
  - Melitz Channel:  $\downarrow$  trade costs  $\Rightarrow \uparrow$  returns to exporting  $\Rightarrow \downarrow \bar{\varphi}_x$ 
    - $\uparrow$  demand for production workers  $\Rightarrow \uparrow w \Rightarrow \downarrow \bar{\varphi}_d$
    - Balanced trade assumption creates a spill over to foreign economy
  
- *Tension between “self-employment”, firm size, & export behavior*
  - Self-employment suggests small firm size ...
  - ... but we know in the data that exporters tend to be larger firms.

# Cross-industry evidence: A Closer Look (I)



- Concentrate on two specific industries:
  - Furniture and related product manufacturing
  - Petroleum and coal products manufacturing

## Cross-industry evidence: A Closer Look (II)



Richard Weigand,  
Virginia Mountain Woodworkers,  
Independence , Virginia

BP's Texas City Refinery,  
Texas City, Texas



## Some Additional Minor Comments

- Empirical analysis
  - Control for average firm size, industry fixed effects
- Settle on one measure of openness in the paper
- Concentration on manufacturing activity limits the analysis...
  - ...but, I'm willing to believe this is a symptom of data availability

Rank	Industry	Percent of total
1.	Ag., forestry, fishing, hunting	39.8
2.	Construction	17.5
3.	Business services	13.3
⋮	⋮	⋮
12.	Manufacturing	2.3

# Conclusions

- Interesting paper on topic that has received relatively little attention
- Paper would benefit from:
  - More forceful case for why self employment is important from an aggregate perspective
  - Clear delineation between self-employment and firm size in both theory and empirics