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# Discussion of La Porta and Shleifer, “The Unofficial Economy and Economic Development”

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# Outline

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- Overview of Paper
- The Informal Economy as Social Insurance
- What does Value Added Per Worker really measure?

## Overview of Paper

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- Three Classical Views:
  1. The Romantic View (De Soto)
  2. The Parasitic View (McKinsey)
  3. The Dual Economy View (Harris-Todaro)
- This paper concludes...
  - Dual Economy: Walmart plus Social Safety Net
- Ratatouille: Mundane ingredients → an intriguing and interesting meal.

# The Informal Economy as Social Insurance

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- Enormous numbers of workers ( $> 1/2?$ ) are in the informal economy.
- Countercyclical employment — Loayza and Rigolini, 2006
- Engine of employment growth? LS too negative? Evidence from India manufacturing (Chatterjee, 2008)
  - Employment in 2005-06: Formal=8.4m Informal=36.4m
  - 10-year employ. growth: Formal=-7.7% Informal=9.6%
- Cost advantage  $\Rightarrow$  may serve as a social safety net.
  - Subsidize employment for the poorest members of society, at least relatively speaking.
  - Maybe a good way to provide social insurance?
  - Worthy of more work in the future...

## What does Value Added Per Worker really measure?

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- Recent papers emphasize we must be careful about interpreting this measure, especially without firm-specific price deflators.
  - Foster, Haltiwanger, and Syverson (2007)
  - Hsieh and Klenow (2007).
- Build a simple model to help us
  - Simplified version of Hsieh and Klenow (2007)
  - Add a “dual economy” element, a la Harris-Todaro

## Model: Walmart versus Trinket Store

- Two goods: “Formal”  $y$  (Walmart) and “Informal”  $x$

Utility  $U(x, y) = (\alpha x^\rho + \beta y^\rho)^{1/\rho}$

Formal Production  $y = A_y L_y$

Informal Production  $x = A_x L_x$

Resource Constraint  $L_x + L_y = (1 - u)\bar{L}$

- Institutions:
  - Firm-specific distortions (sales taxes):  $\tau_y$  and  $\tau_x$
  - Minimum wage/regulations raise wage in formal sector:  
 $w_y = w_x(1 + \mu) \Rightarrow$  Harris-Todaro unemployment rate  $u$ .

## Competitive Equilibrium

- Goods prices:  $p_x$  and  $p_y$ . Perfect competition. Queueing for the Walmart jobs gives rise to unemployment.
- Firms:

$$p_y(1 - \tau_y)A_y = w_y = w_x(1 + \mu)$$

$$p_x(1 - \tau_x)A_x = w_x$$

- Households:

$$\frac{U_y}{U_x} = \frac{p_y}{p_x}$$

$$w_x = w_y(1 - u) \Rightarrow u^* = \frac{\mu}{1 + \mu}.$$

## Equilibrium Allocation of Labor

- Allocation of Labor to Informal vs. Formal:

$$\frac{L_x^*}{L_y^*} = \left( \frac{\alpha}{\beta} \cdot \frac{1 - \tau_x}{1 - \tau_y} \cdot (1 + \mu) \right)^{\frac{1}{1-\rho}} \left( \frac{A_x}{A_y} \right)^{\frac{\rho}{1-\rho}}$$

- Informal sector is larger when
  - Informal sector faces low distortions/taxes ( $\tau_x$ )
  - Formal sector faces higher distortions/taxes ( $\tau_y$ )
  - Wage premium in formal sector is higher ( $\mu$ )
  - Informal sector is relatively more productive ( $A_x/A_y$ )

## Value-added Per Worker?

- Recall the firm's first-order condition,  $p_y(1 - \tau_y)A_y = w_y$ :

$$\Rightarrow \frac{p_y y}{L_y} = \frac{w_x(1 + \mu)}{1 - \tau_y}$$

$$\frac{p_x x}{L_x} = \frac{w_x}{1 - \tau_x}$$

Key Result (FHS/HK): Variation in *nominal* value-added per worker across firms tells you nothing about TFP,  $A_i$ .

- Why? Prices are inversely proportional to productivities.
- Instead, differences tell us about the *distortions* (very useful).  
Marginal *revenue* products should be equated across firms. We need industry-specific (or even firm-specific) deflators to recover productivities.

## Wages and $\mu$

- Table 9: Wages –  $w_y$  versus  $w_x$ 
  - Ratio of Regist. to Unregistered:  $\mu = 26\%$  (2.39/1.90)
  - Ratio of Small to Unregistered:  $\mu = 97\%$  (3.75/1.90)
  - Ratio of Big to Unregistered:  $\mu = 72\%$  (3.26/1.90)
- Caveat: Some of this could be quality of labor (though quite surprisingly, big firms pay *lower* wages than small or medium sized firms!)

## Table 10: Revenue Labor Productivity

- Ratios of RLP measure relative distortions:  
 $(1 + \mu)(1 - \tau_x)/(1 - \tau_y)$ . Effective Tax Rate  $1 - 1/RLP$ .
  - A ratio  $> 1$  or  $ETR > 0$  means the formal sector faces *higher* distortions
- Value-added, Informal Survey (others qualitatively similar)
  - Regist. vs Unregistered:  $\exp(.18) = 1.20 \Rightarrow ETR = 0.17$
  - Small vs Unregistered:  $\exp(1.54) = 4.66 \Rightarrow ETR = 0.79$
  - Big vs Unregistered:  $\exp(2.12) = 8.33 \Rightarrow ETR = 0.88$

These are huge distortions. And big firms are even more distorted than small firms.

## How to Measure True Productivity?

- Evidence on  $A_y/A_x$  from the allocation of labor:

$$\frac{L_x^*}{L_y^*} = \left( \frac{\alpha}{\beta} \cdot \frac{1 - \tau_x}{1 - \tau_y} \cdot (1 + \mu) \right)^{\frac{1}{1-\rho}} \left( \frac{A_x}{A_y} \right)^{\frac{\rho}{1-\rho}}$$

- Distortions tend to make the informal sector large.
- This can be mitigated somewhat by a low  $A_x/A_y$ .

## Income Gains from Eliminating All Distortions?

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- AKA: How costly is the social insurance?
- Using the observed distortions and backing out the relative productivity levels, one can compute the output gains from eliminating all distortions.
- Findings (EofS=2,5,8. Rich Informal Share=.05,.10):
  - $A_x/A_y$  in Poor = .16 to .43 (Rich=1)
  - Output gain is a factor of 3.1 to 3.5
    - Factor of about 2 from Harris-Todaro unemployment

## Implications for La Porta and Shleifer

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- The story is more subtle than La Porta and Shleifer make it seem, but the bottom line is consistent with their claims.
- Moving resources from the informal to the formal sector *would* raise output
  - Not because they are more productive in an absolute sense, but because they have a higher MRPL.
- What is called “productivity” in the paper is completely unrelated in principle to the  $A_i$ .
  - But allocation of labor tells us that  $A_y/A_x$  is even higher in poor countries than it is in the United States.
- How costly is the “social insurance” provided by the informal economy? Is this the best way to provide it?