

# Trade and Employment

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  - 4 Agent-based models
- Paper is first draft, incomplete—*had to determine my own thinking on this issue*

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- Economists *hardwired* to support trade as engine of accumulation

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- Labor coeffs can *all fall* individually and in the aggregate rise
- Optimistic to think that employment can expand in a slow growing economy because the aggregate labor coefficient rises.



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- First to link accumulation with employment growth

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- Unresolved tension between trade theorists and rest of humanity

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- Must finance domestic accumulation of human capital
- Here a strong domestic market may be counter productive (Marquez and Pages-Serra, 1998)
- Strong domestic market neither necessary nor sufficient for the pace of growth required to lift large, and largely uneducated populations out of dollar-a-day poverty

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- Is role of the public sector to redress wage inequality?

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- If choice between trade and structuralists...?

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- What unemployed do when displaced by productivity growth and trade?

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- Public sector must make upgrading affordable to families

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- *World is not set up to allow countries will large uneducated workforces, corrupt govts, debt ridden and highly distorted incentive structures and fragile banking systems to prosper*
- Should it be?

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- Trade can serve to *discipline* public sector?

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- Small effects spread over large number of agents vs. large impact on a few



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- Worse the terms of trade are in the long run the more we have export to pay for the imports.
- If exports are labor intensive then gain in employment absorption is obvious

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- Results depend on assumptions?

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- **Conclude: policies must be right for this to happen**

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- Complex “black boxes” (except for authors)

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- Sophisticated microfounded adjustment...next step?

## Other examples

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- Robinson, McLeod and Hinojosa trying to develop village CGEs...

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- Practically amount to the same thing just over different time frames

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- **Must identify subject of carefully**

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 $\dot{\rho} = G(L, \rho)$
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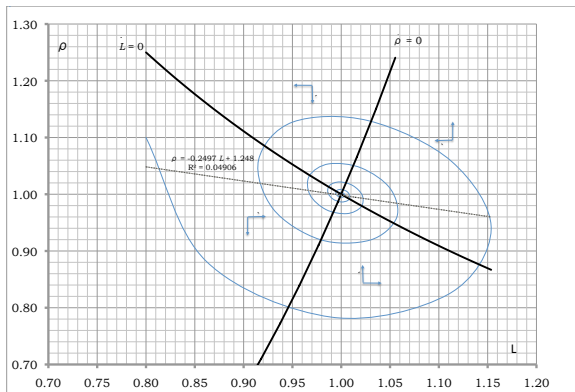
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- Sign of  $\frac{\partial G}{\partial L}$  is of fundamental importance

# The phase diagram





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- This is a fundamental difficulty with the problem
- At heart of the confusion in the literature on trade and employment?

Table 1: Dependent variable: Natural log of the labor force

Unweighted	1	2	3	4
Productivity <sup>1</sup>	0.309*** (0.054)	-0.012*** (0.001)	0.309*** (0.054)	0.274*** (0.065)
Trade <sup>2</sup>				0.002** (0.001)
Constant	11.870*** (0.496)	14.815*** (0.006)	11.870*** (0.496)	11.986*** (0.577)
$R^2$ -adjusted	0.117	0.000	0.117	0.138
$R^2$	.117	.00042	.118	.139
$n$	3962	3962	3962	3078
$F$ -stat	32.6	335.8	32.64	20.51
Time fixed effects	no	yes	yes	yes
County fixed effects	yes	no	yes	yes

*Notes:* 1.The dependent variable is the log of the labor force rate.  
2. The variable productivity is the log of income per capita. 3. the variable trade is the sum of exports and imports divided by GDP.  
*Data source:* World Bank (2009) 1960:2008

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	All	All-weighted	LDCs	LDCs-weighted
Productivity <sup>1</sup>	0.285*** (0.063)	0.034 (0.110)	0.412* (0.192)	-0.531 (0.561)
Trade <sup>2</sup>	0.001* (0.001)	0.009** (0.004)	-0.001 (0.001)	0.008*** (0.002)
Constant	11.779*** (0.601)	14.566*** (0.839)	9.150** (2.734)	20.922* (7.857)
$R^2$ -adjusted	0.123	0.325	0.112	0.168
$R^2$	.1230845	.3248399	.1159108	.1680512
$n$	3536	6411896	458	385256
$F$ -stat	17.1356	21.12832	2.595477	11.3
Time fixed effects	yes	yes	yes	yes
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- Next generation of models?