

Trade and Labor Market Outcomes

Elhanan Helpman (joint with Oleg Itskhoki and Stephen Redding)

June 16, 2011

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 - only a fraction of firms export;
 - exporters are bigger and more productive than non-exporters.

Table: Share of manufacturing firms that export, in percent

Country	Year	Exporting firms, in percent
U.S.A.	2002	18.0
Norway	2003	39.2
France	1986	17.4
Japan	2000	20.0
Chile	1999	20.9
Colombia	1990	18.2

Source: WTO (2008, Table 5)

Table: Share of exports of manufactures, in percent

Country	Year	Top 1% of firms	Top 10% of firms
U.S.A.	2002	81	96
Belgium	2003	48	84
France	2003	44	84
Germany	2003	59	90
Norway	2003	53	91
U.K.	2003	42	80

Source: WTO (2008, Table 6)

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- However, three prominent features of labor markets are:
 - 1 substantial differences in workforce composition across firms;
 - 2 variation in wages for workers with the same observed characteristics;
 - 3 unemployment rate varies across industries (see BLS).

Labor Market Rigidities

There are substantial differences across countries in labor market rigidities

Country	Difficulty of Hiring	Rigidity of Hours	Difficulty of Redundancy
United States	0	0	0
Uganda	0	0	0
Rwanda	11	0	10
United Kingdom	11	20	0
Japan	11	7	30
OECD	27	30	23
Italy	33	40	40
Mexico	33	20	70
Russia	33	40	40
Germany	33	53	40
France	67	60	30
Spain	78	40	30
Morocco	89	40	50

Source: Botero et al. (2004), downloaded from the World Bank's web site <http://www.doingbusiness.org/ExploreTopics/EmployingWorkers/>, September 25, 2009.

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- And we need to understand how labor market policies in one country affect its trade partners.

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 - 1 what is the impact of trade on inequality and unemployment?
 - 2 what are the impacts of one country's labor market frictions and policies on its trade partners?
 - 3 how does the removal of trade impediments impact countries with different labor market frictions?

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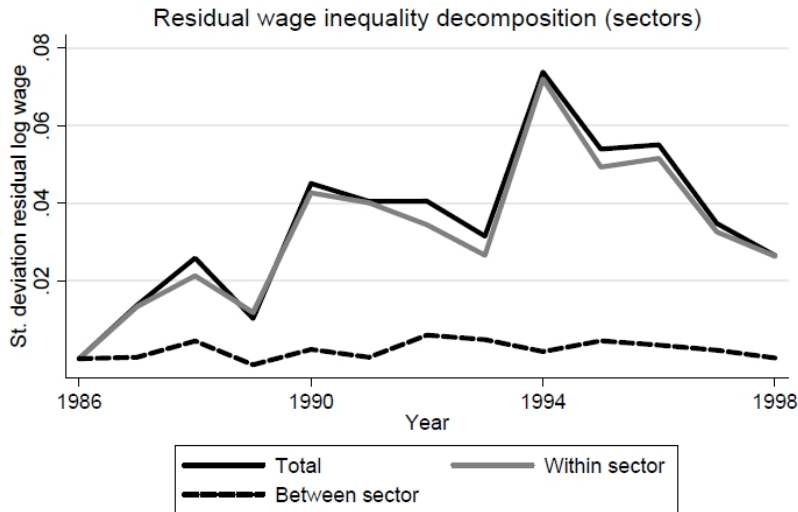
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 - search and matching, Helpman and Itskhoki (2010), Helpman, Itskhoki and Redding (2010), Mitra and Ranjan (2010), Felbermayr, Prat and Schmerer (2008).

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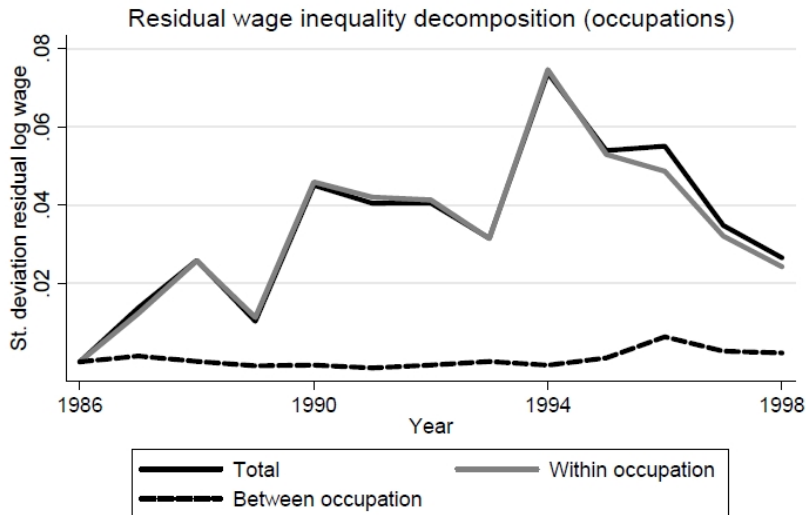
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- Trade liberalization raises **within group** wage inequality, Attanasio, Goldberg and Pavcnik (2004) and Menezes-Filho, Muendler and Ramey (2008).

Residual Inequality: within sectors



Note: Decomposition of the residuals from a Mincer regression of log wages on, education, demographics and experience. Difference from 1986 value.

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- Preferences are *CES*.

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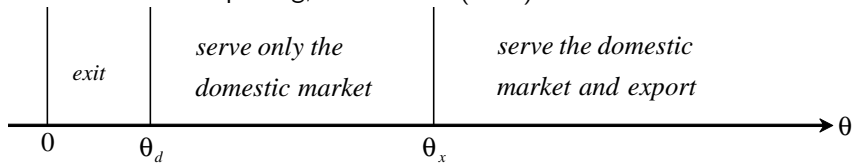
- ζ is a parameter, rising in the cost of posting vacancies and declining in the Hicks-neutral efficiency of the matching process;
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- $x = N/L$ is the ratio of the number of matched workers to the number of searching workers; our measure of tightness in the labor market.

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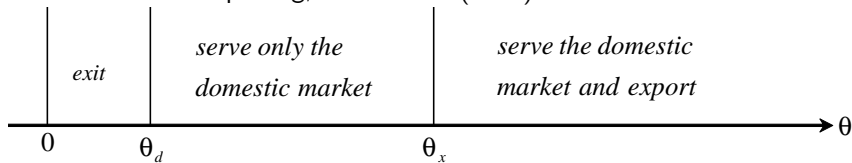
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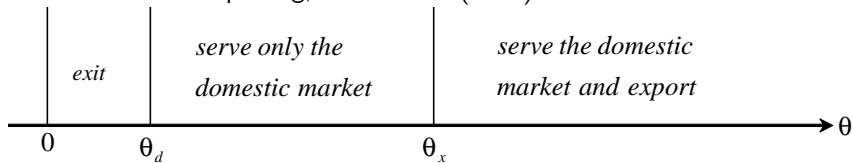
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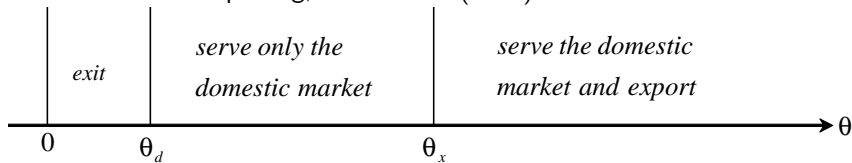
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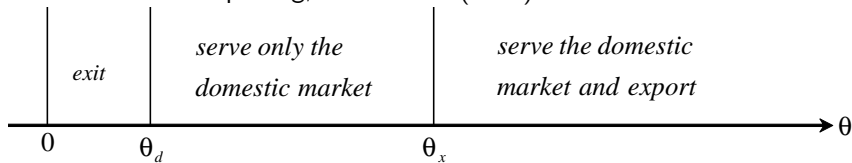
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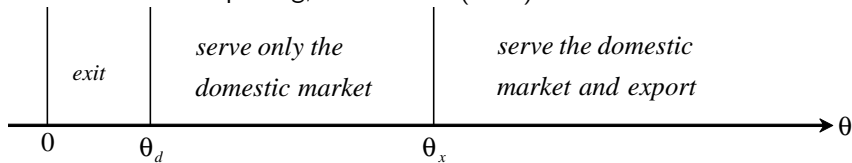
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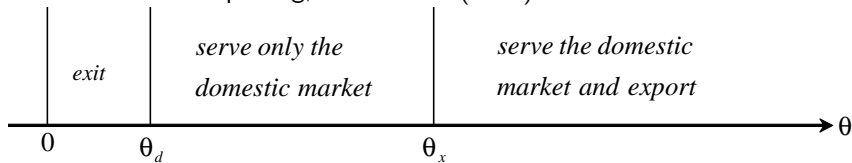
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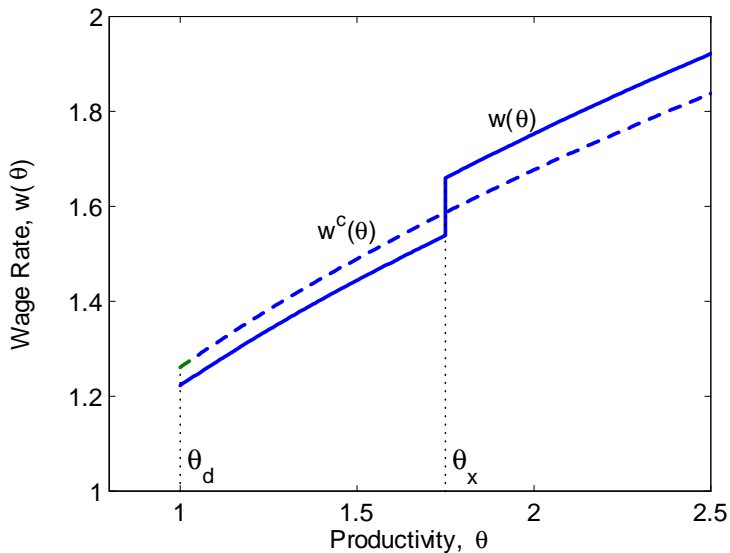
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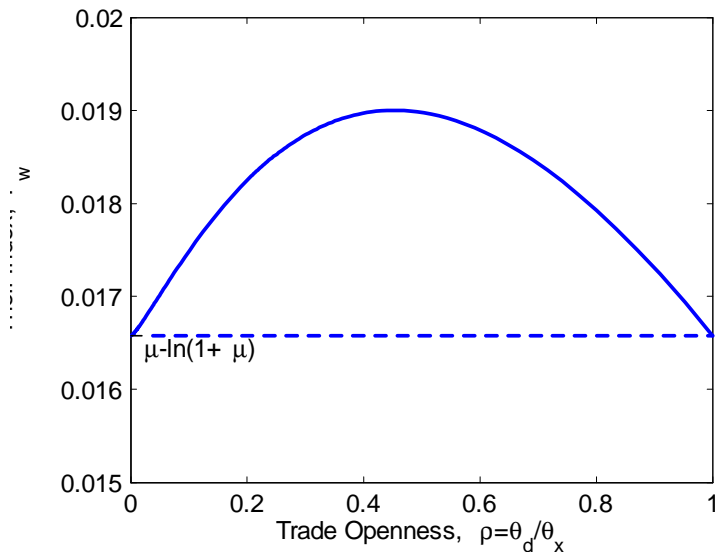


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 - 1 post more vacancies;
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 - 4 employ more workers;
 - 5 pay higher wages (because they have workforces of higher average ability);

Wages



Inequality of Wages



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- Assume $b_A > b_B$, i.e., labor market frictions in the differentiated sector are relatively larger in country A .

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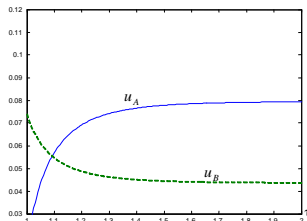
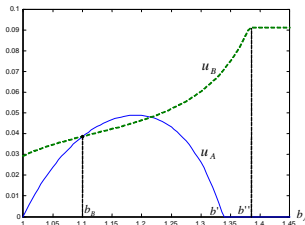
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- A reduction of trade impediments raises welfare in both countries.

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- Now the relevant definition is (λ is the relative bargaining weight of employers):

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Unemployment Benefits

- The cost of hiring workers changes with unemployment benefits, and the cost of hiring impacts welfare of both countries.
- This raises two questions:
 - Is it beneficial to have unemployment benefits?
 - How do unemployment benefits in a country impact its trade partner?
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- b_{uj} raises b_j directly, and reduces b_j indirectly via the decline of x_j .

Impact

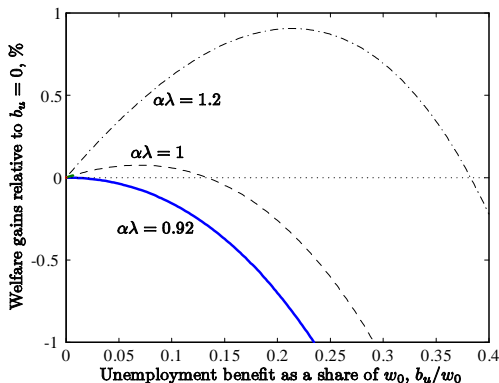
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- **Interdependence:** The foreign country gains from j 's unemployment benefits if and only if $\xi_{0j} > \xi_j$.
- **Own effect:** Country j may gain or lose from unemployment benefits; impact Q , ω , and tax burden T :



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- A single policy instrument, such as unemployment benefits, cannot correct the labor market and product market distortions simultaneously.

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- This requires less information than the policies with b_u ; the latter also requires knowledge of ξ_0 and ξ .

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- Generalizing macro models to include trade and multiple sectors is useful for assessing active labor market policies:
 - interdependence across countries implies that a country's labor market policies affect its trade partners;
 - independent labor market policies can lead to prisoner dilemma type situations, and therefore there exist potential gains from coordination of labor market policies.