ERWIT Lecture
Globalization and Inequality

Elhanan Helpman

Harvard University and CIFAR

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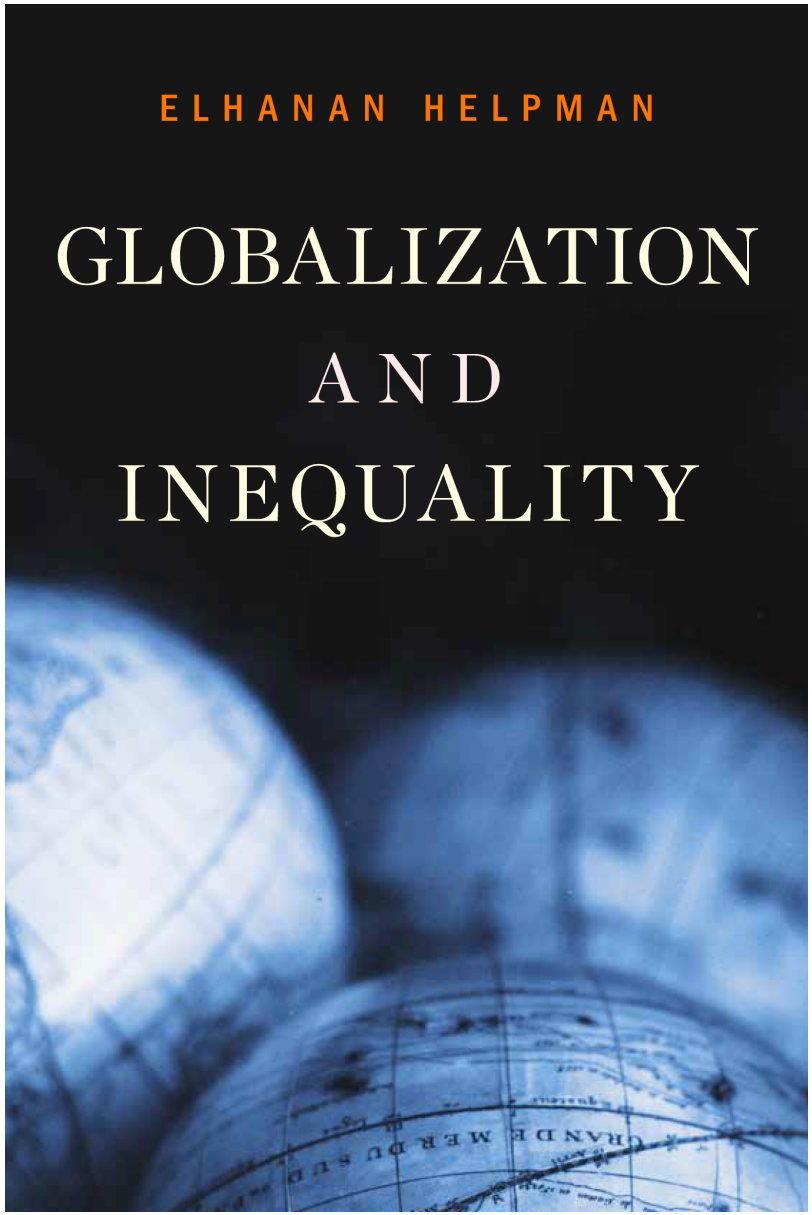
ELHANAN HELPMAN
GLOBALIZATION
AND
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Main Content

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  - Residual inequality

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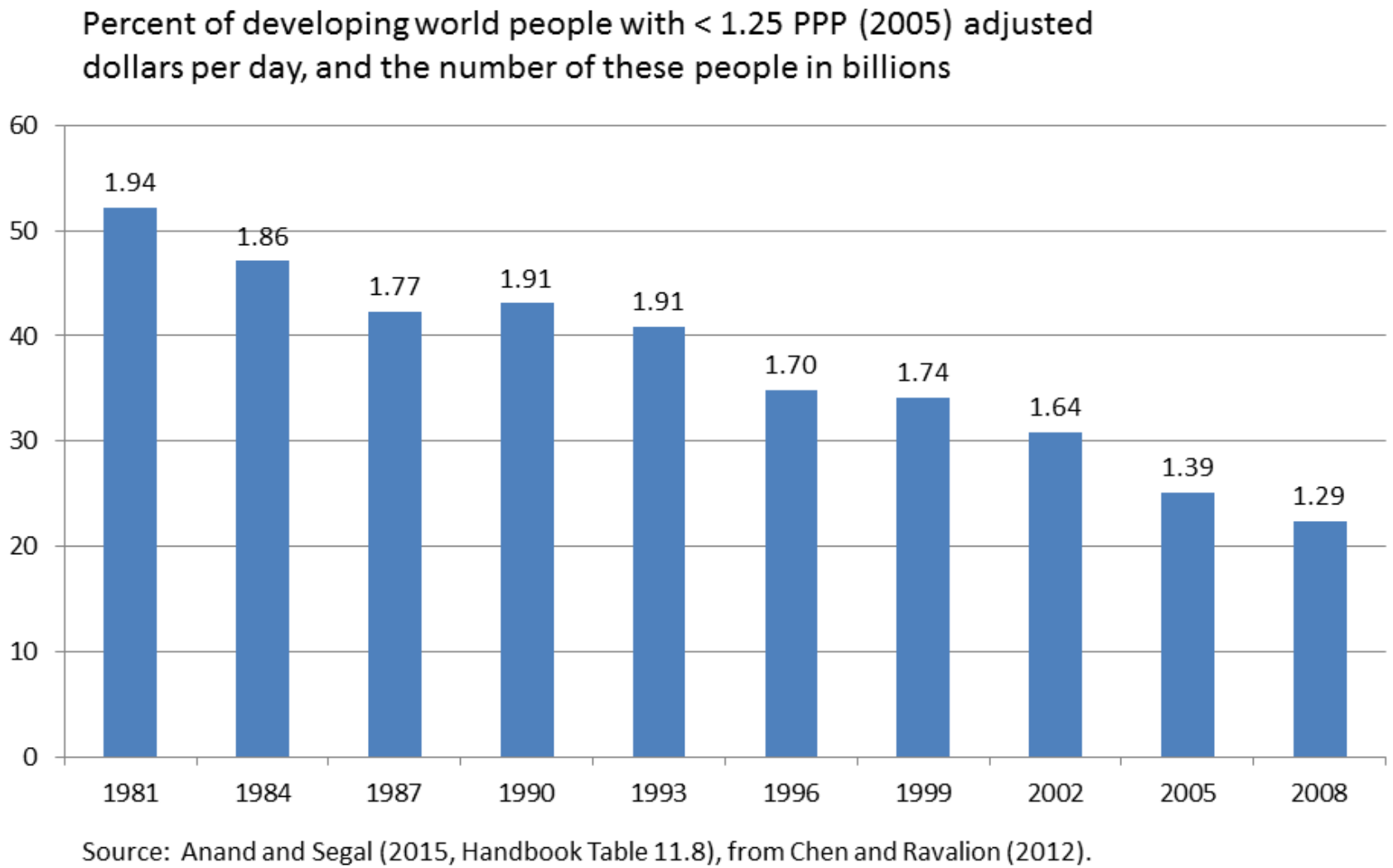
- Dramatic decline in world poverty since the 1980s, as less developed countries globalized
- Rising inequality within many OECD countries

Declining Poverty

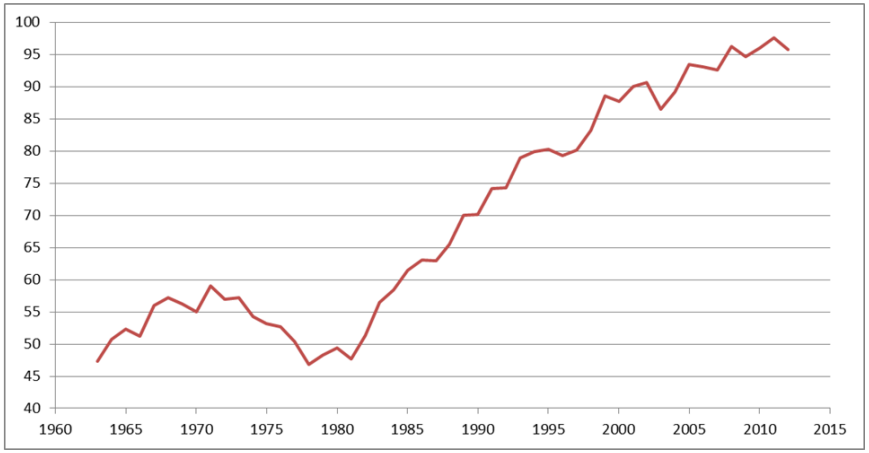
World poverty:



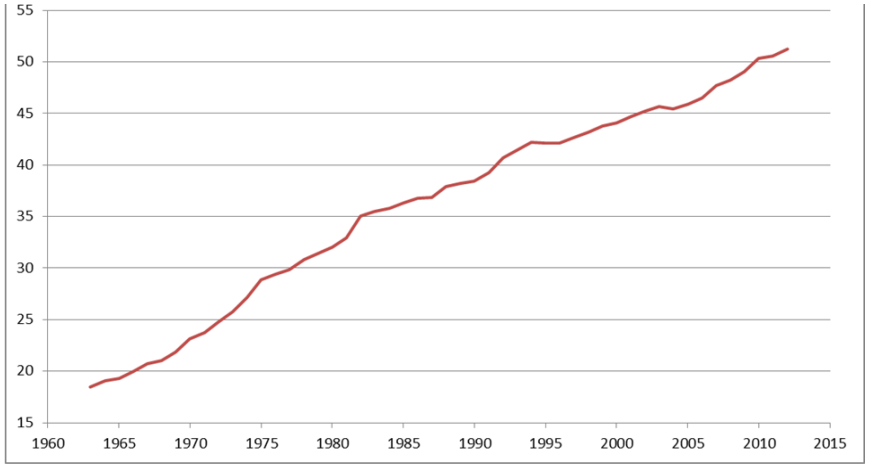
Source: Anand and Segal (2015, Handbook Table 11.8), from Chen and Ravalion (2012).

College Wage Premium

U.S. college wage premium and share of college hours:



College versus high school measured wage gap. Autor (2014)



College share of hours worked: all working age adults. Autor (2014)

Rising Wage Inequality

Table 2.1 Ratio of Wages of the 90th to the 10th Percentile of Male Earners

	Australia	*Canada*	*Finland*	*France*	*Italy*	*Japan*	*Norway*	*Sweden*	*UK*	*U.S.A.*
1979	2.75	3.46	2.44	3.39	2.29	2.59	2.05	2.12	2.46	3.19
1994	2.94	3.78	2.53	3.42	2.64	2.77	1.97	2.20	3.22	4.26

Source: Katz and Autor (1999, table 10).

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  - Consistent with global technological change

Factor Content Analysis

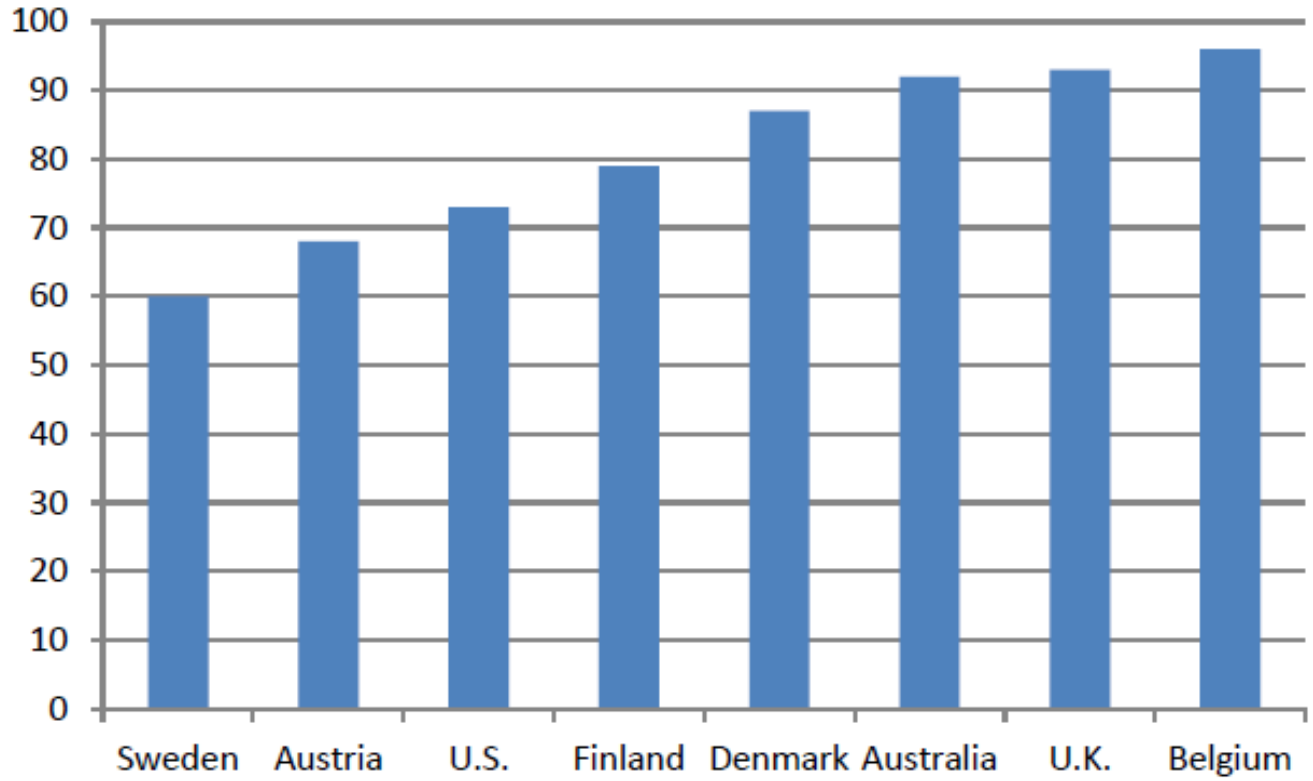
Table 3.1 Contribution of Immigration and Trade with Less-Developed Countries to the US College Wage Premium, 1980–1995 (in log points)

Elasticity of substitution	2	1.41	1
Immigration	0.007	0.009	0.013
Trade	0.007	0.010	0.014
Actual change	0.191	0.191	0.191

Data source: Borjas, Freeman, and Katz (1997, table 18).

Employment

Share of within-industry contribution to the increased percentage of nonproduction workers (Berman, Bound and Machin, 1998):



Similar shifts in less developed countries

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  - positive correlation across many countries, rich and poor, in sectoral technology upgradings

Growth of Offshoring

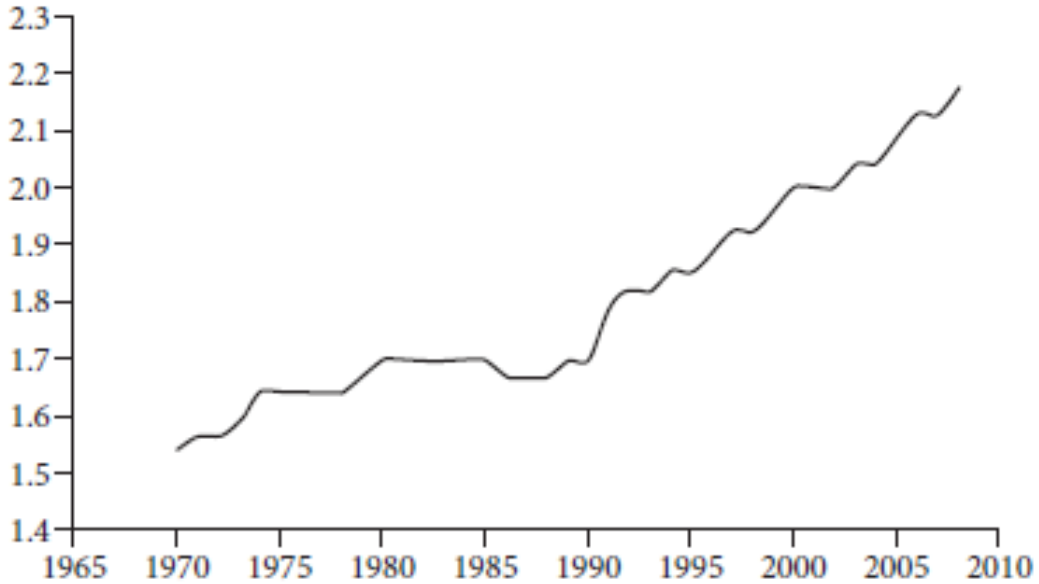

Figure 5.1 Index of offshoring manufacturing products in the world economy, 1970–2008. *Data source:* The inverse of VAX for manufacturing in Johnson and Noguera (2016, table D1).

Offshoring vs. Technology (US)

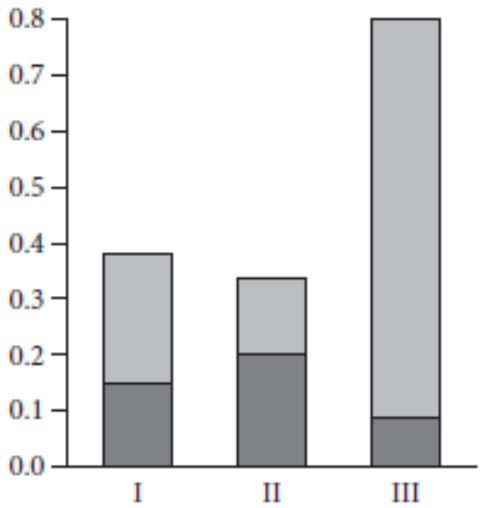

Figure 5.4 Estimated annual rates of increase in wages of nonproduction relative to production workers in percent for different measures of computers and high-tech capital: United States, 1979–1990. The lower bar represents the impact of offshoring while the upper bar represents the impact of computers and other high-tech capital. *Data source:* Feenstra and Hanson (1999, table VI).

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- Wage inequality changed differentially in different part of the distribution (e.g., upper vs. lower)
- Trade liberalization raised within group wage inequality
- Residual wage inequality was large and contributed significantly to rising wage inequality

Response: Broadening the Canvas

- Assortative matching

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Sorting and Matching

- Due to complementarities, improved matches of workers with sectors, managers or technologies, raise wage inequality: Costinot and Vogel (2010), Grossman, Helpman and Kircher (2017)

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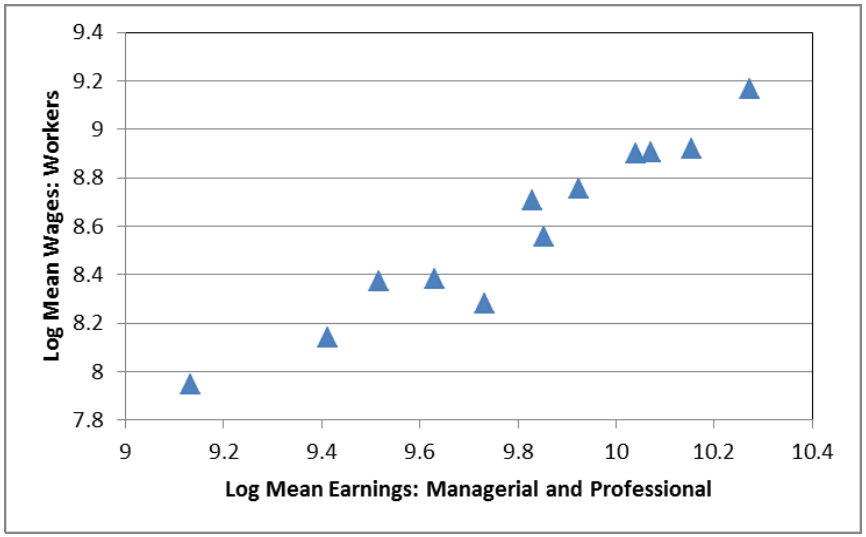
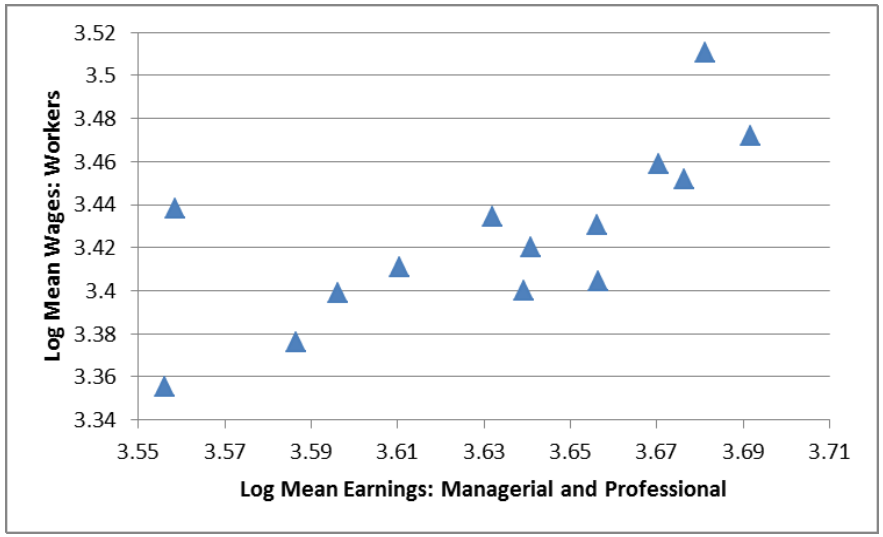
- Generates predictions about growth, trade and inequality: Grossman and Helpman (2018)

Correlated Compensation Levels



Brazil 1994



Sweden 2004

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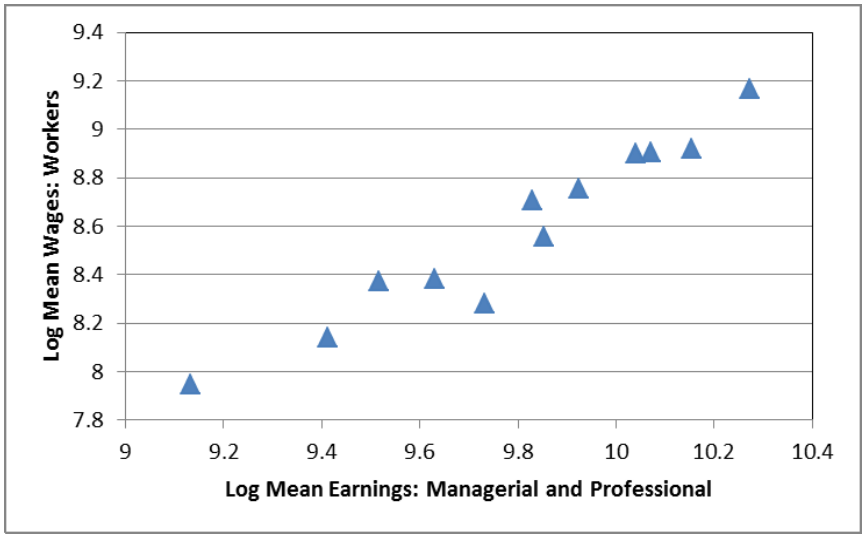

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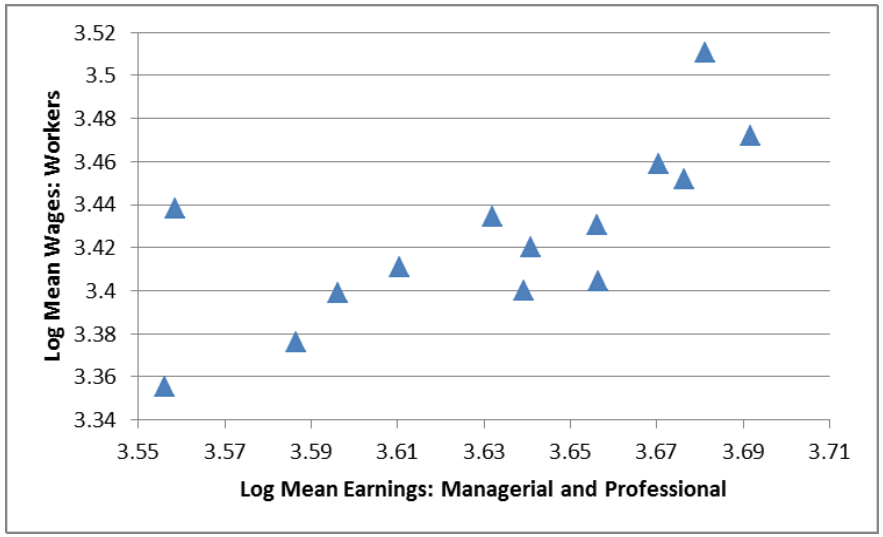

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- In Brazil, dispersion of managerial compensation was negatively correlated with dispersion of workers' wages across industries

Evidence on Inequality with Matching: Lee (2017)

Table: Rise in U.S. Real Wages: 2000-2007 (in percent)

Worker type	HD	HG	SC	CG	AD
Decline in trade costs	1.15	1.15	1.49	1.62	1.81
Rise in China's productivity	0.06	0.09	0.13	0.14	0.17

Worker types: high school dropouts (HD), high school graduates (HG), some college education (SC), college graduates (CG), and advanced degrees (AD).

Regional Disparity: Brazil

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- Dix-Carneiro and Kovak (2015) extended the analysis to include skilled and unskilled workers and found that skill premia declined, but the declines can explain at most 14% of the 1991-2000 actual declines

The China Shock

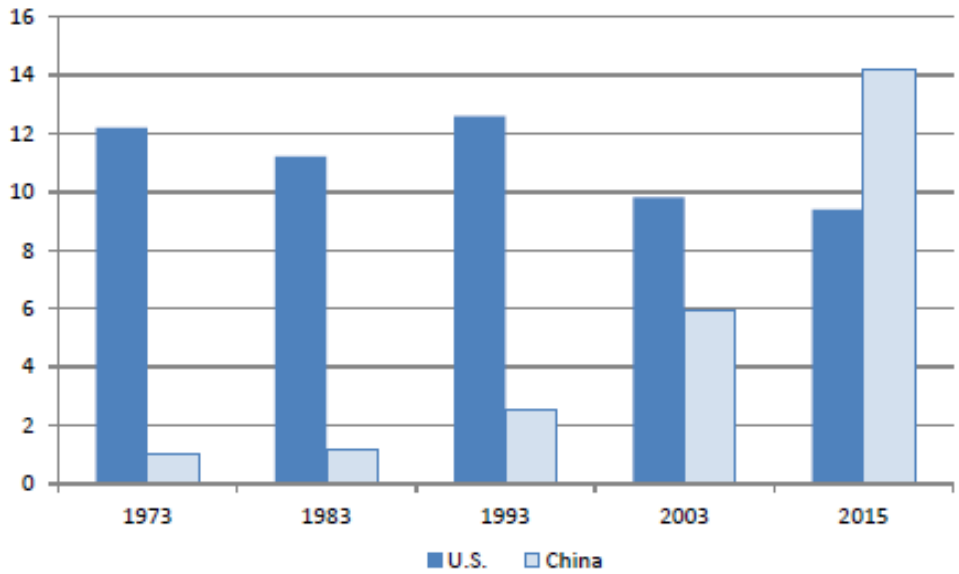

Figure 8.1: Shares of China and the United States in the world's merchandise exports (in percent). Source: World Trade Organization (2016, Table A4).

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  - There the China shock had much smaller effects, while the rise of Eastern Europe had bigger effects

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  - Lazear and Spletzer (2012): in the last quarter of 2007 there were over 12 million hires and separations, other estimates for different period find 9 million hires and separations

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- Employment problems are highly localized, not macro problems

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- A theory of trade with heterogeneous firms and monopolistic competition has been developed by Melitz (2003), emphasizing selection into exporting

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  - trade changes the productivity distribution of active firms even when all firms export

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- Factor proportions magnify the inequality in rich countries, moderate inequality in developing countries

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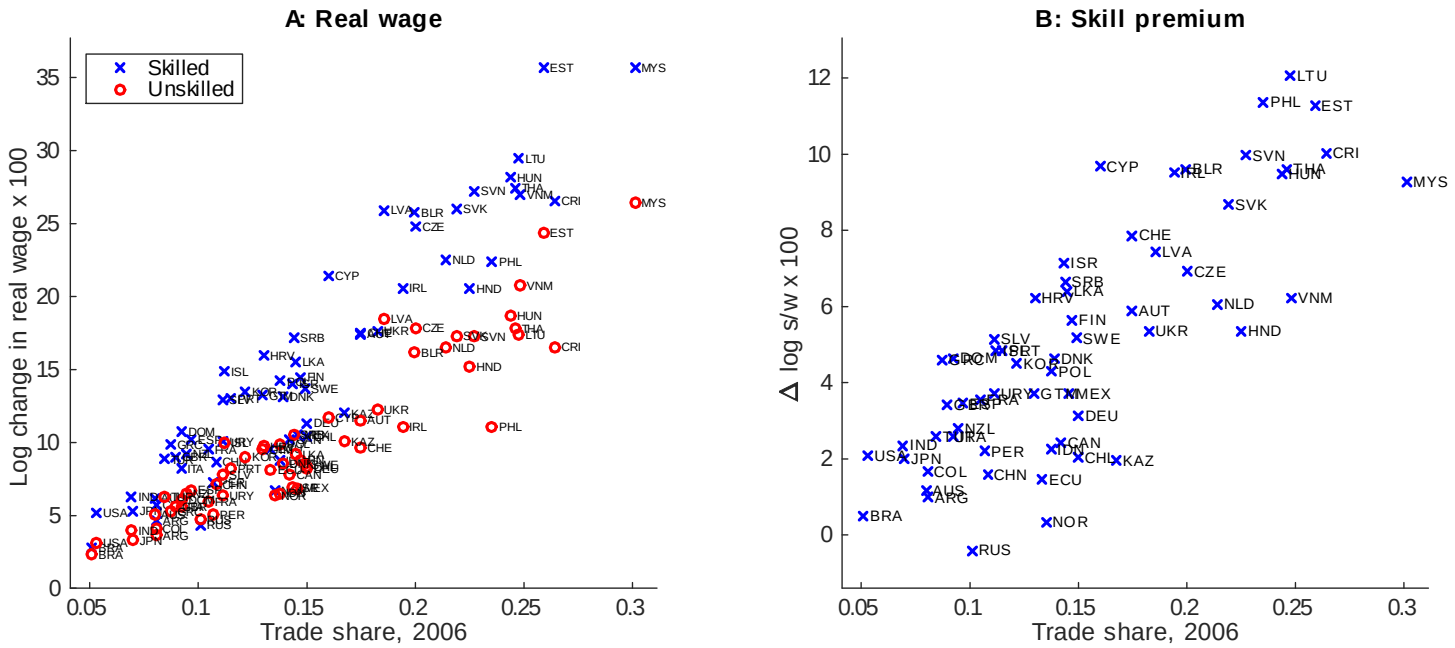

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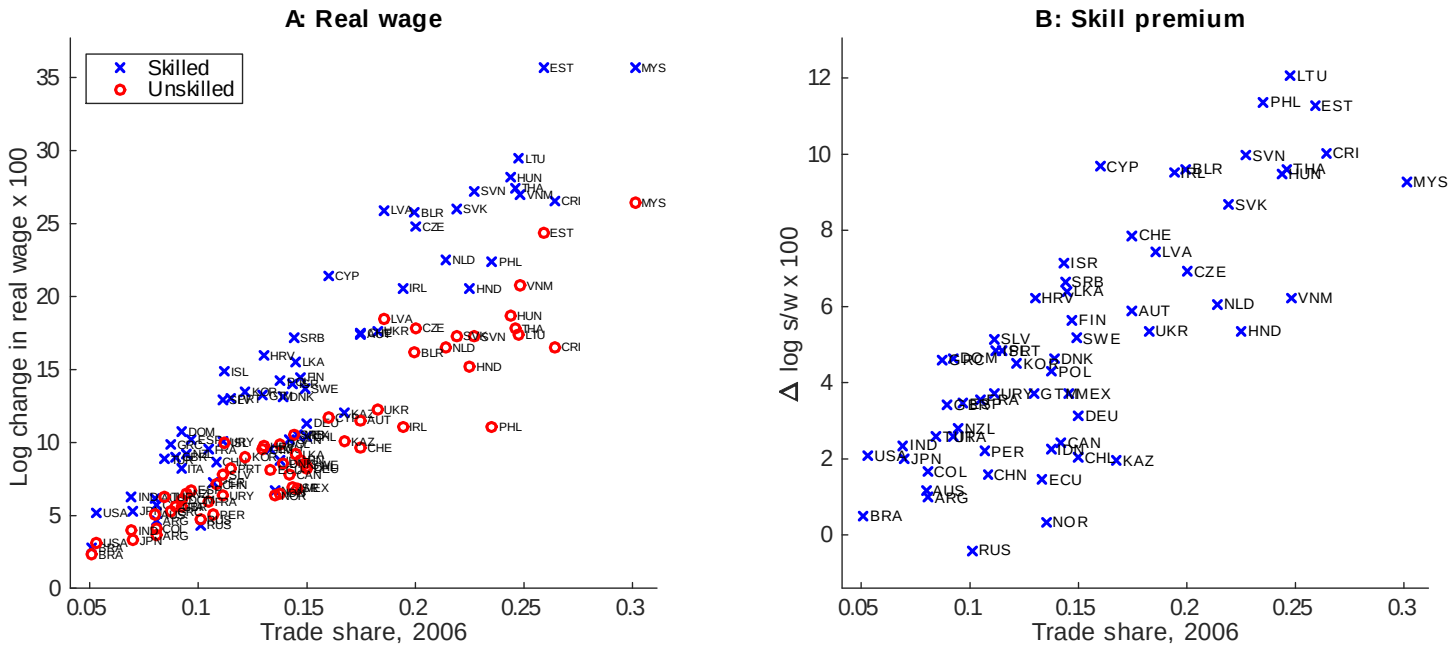

- These combined effects explain only a fraction of the rise in the college wage premium

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- Calibrating the model to US data, he found that trade can explain 20% of the rise in the skill premium between 1980 and 1995, half of it due to *directed technical change*

Residual Wage Inequality

- **Brazil**:

	Level 1990	**Change 1986-95**
Residual wage inequality	57	48
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	Level 2001	**Change 2001-7**
Residual wage inequality	70	87
—within sector-occupation	83	79

Akerman, Helpman, Itskhoki, Muendler and Redding (2013)

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Trade Liberalization

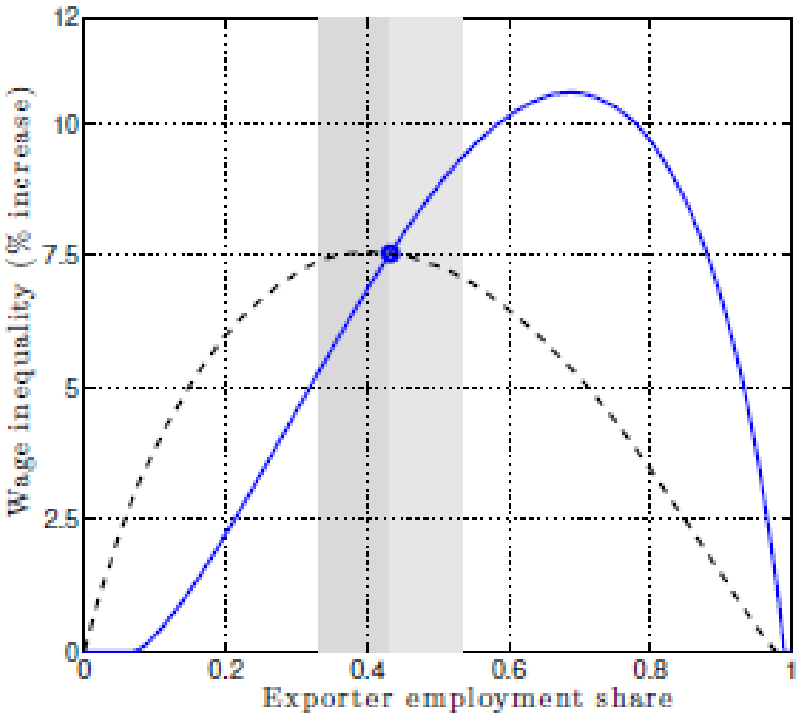

Figure 1: Counterfactual wage inequality

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6. Based on available evidence, foreign trade does not appear to be the main driver of inequality