

International Economics

- » 1870-1913: 30 million European emigrate to N and S America + Australia
- » Canada gained 30% more people from immigration
- » Argentina gained 60%
- » USA gained 17% (15 million)
- » 1870 real wages are 3X higher in New World compared to Europe.
- » 1913 ratio is down to 2X.

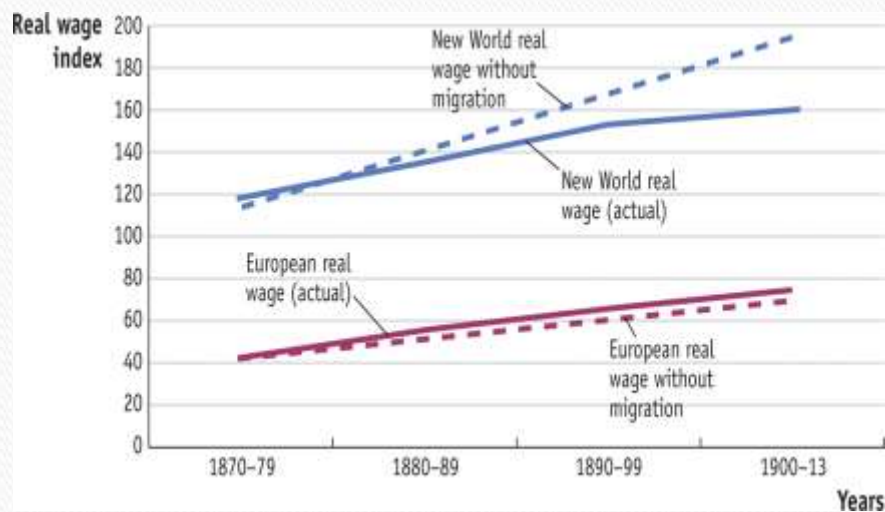
Immigration to the New World



Counterfactual Analysis

- » How would relative wages have evolved without emigration, assuming same capital accumulation?
- » $\approx \frac{195}{70} = 2.7X$ (my calculation from next graph)

Immigration to the New World



Immigration to the New World



- » Q: Is it reasonable to assume same capital accumulation?
- » What difference would it make for the counterfactual?

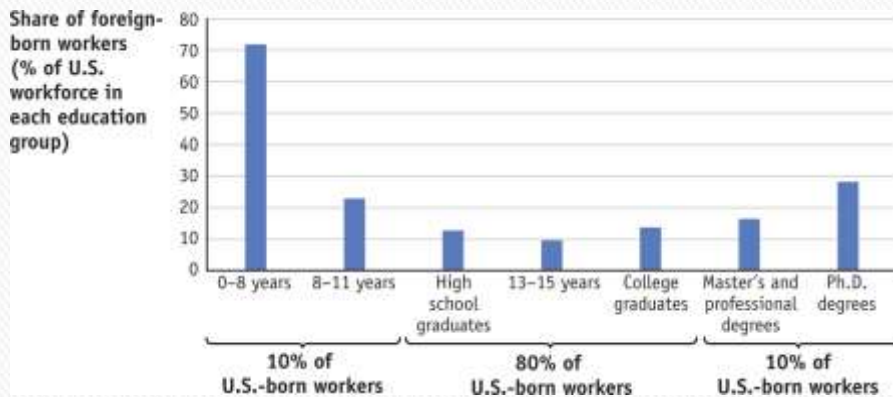
Immigration to the New World



- » Most foreign-born workers in the USA are either little educated or very highly educated.
- » A study has estimated that immigration may have contributed to a 9% decline in wages for high-school drop-outs and 5% for college graduates between 1990-2004. (Consistent with specific-factors model.)
- » The impact on those with high-school degrees and less than college is much lower.
- » Questions:
 - > How can we account for additional capital?
 - > What about entrepreneurship?

Immigration in the USA today





Immigration in the USA today >

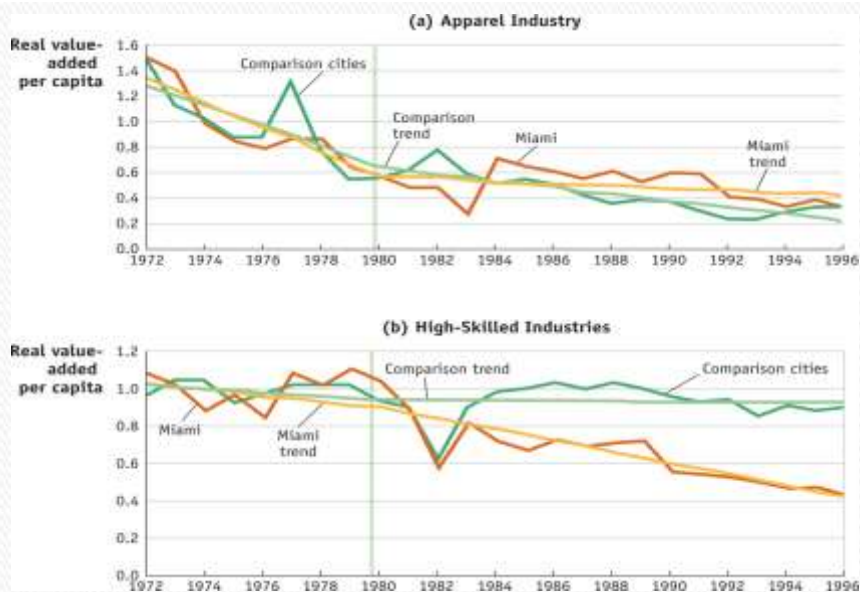
- » In 1980, 125 000 Cuban refugees landed in Miami. 7% of Miami's population.
- » Those people were low-skilled.
- » Prediction from the Rybczynski theorem:

An increase in the amount of a factor will increase the output of the industry using this factor intensively and decrease that of the other industry.

The Mariel boat lift in Miami >

- » A study has compared the effect of the Mariel boat lift on two sectors:
 - > The apparel industry (textile)
 - > The high-skilled industries
- » The following graph is consistent with the Ryb. Theorem!
 - > Slowdown in the downward trend in the decline of the apparel industry.
 - > Marked decline in the high-tech industry.

The Mariel boat lift in Miami >



The Mariel boat lift in Miami >

- » Estimation using SR and LR models.
- » SR assumes fixed land and capital stocks
 - > Immigration affects mostly workers with either low or high education.
- » LR assumes fixed returns to K
 - > Immigration affects only workers with low education.

Immigration in the USA >

PERCENTAGE CHANGE IN THE WAGE OF WORKERS WITH EDUCATIONAL LEVEL					
	Less Than 12 Years	12 Years	13-15 Years	16 Years or More	Overall Average
Part A: Effect of Total Immigration, 1990-2004					
Method:					
Capital and land fixed	-9.0	-2.4	-0.8	-5.0	-3.2
Real return to capital fixed	-4.4	1.0	2.2	-0.2	0.3
Part B: Effect of Illegal Immigration, 1990-2004					
Method:					
Real return to capital fixed	-7.9	0.8	0.8	0.8	0.1

Immigration in the USA >

- » Singapore had the highest FDI in the World in terms of the size of its economy.
- » The next Table gives different estimations of changes in the capital returns and wages over recent periods.
- » Part A is consistent with the short run model.
- » Part B is mixed
 - > Returns to K are almost constant
 - > Wages go up.
- » Wages going up would be consistent with productivity growth.

FDI in Singapore



	ANNUAL GROWTH RATE (%)		
	Real Rental	Real Wages	Implied Productivity
Part A: Using Production Function and Marginal Products			
<i>Time Period:</i>			
1970-1980	-5.0	2.6	-1.5
1980-1990	-1.9	0.5	-0.7
1970-1990	-3.4	1.6	-1.1
Part B: Using Calculated Rental and Actual Wages			
<i>Interest Rate Used and Time Period:</i>			
Bank lending rate (1968-1990)	1.6	2.7	2.2
Return on equity (1971-1990)	-0.2	3.2	1.5
Earnings-price ratio (1973-1990)	-0.5	3.6	1.6

FDI in Singapore



Country	Remittances Received (\$ millions)	Net Aid Received (\$ millions)
Albania	\$1,468	\$305
Bangladesh	6,562	1,502
Brazil	4,382	297
Colombia	4,523	731
Croatia	1,394	164
Dominican Republic	3,414	128
India	38,666	1,298
Mexico	27,136	121
Morocco	6,730	1,090
Sudan	1,769	2,104

Gains from immigration >

- » The numbers by Borjas imply a small effect of immigration on GDP. (Not clear if it is in per capita terms.)
- » Borjas estimates capital gain of 2% and domestic labor loss of 1.9%. (Consistent with opposition to immigration.)
- » Numbers by Kremer and Watt imply more important effect of immigration. (Considers other countries than USA.)

	Amount of Immigration (% of Home labor)	Increase in GDP (%)
Part A: Calculation of Home Gains		
<i>Study used</i>		
Borjas (1995, 1999), U.S. gains	10%	0.1%-0.4%
Kremer and Watt (2006), Household workers	7	1.2-1.4

Gains from migration >

	Amount of Immigration (% of Home Labor)	Increase in GDP (%)
Part B: Calculation of Regional Gains		
<i>Study used</i>		
Walmsley and Winters (2005), From developed to developing countries	3	0.6
Klein and Ventura (2006), Enlargement of the European Union		
After 10 years	0.8-1.8	0.2-0.7
After 25 years	2.5-5.0	0.6-1.8
After 50 years	4.8-8.8	1.7-4.5
Very long run	na	8
Common Labor Market in NAFTA		
After 10 years	1.0-2.4	0.1-0.4
After 25 years	2.8-5.5	0.4-1.0
After 50 years	4.4-9.1	1.3-3.0
Very long run	na	10.5

Gains from migration >

- » W&W estimate world GDP gain of 0.6%
- » ...

Gains from migration >