

## Lecture 14(i) **Announcements**

1. **Final Exam:** Fri, Dec. 14,  
6:30 pm.-8:30 pm
  - Makeup final on Tues. Dec 18  
10:00 a.m.-noon
  - **REGISTER** for makeup  
[headgrader@gmail.com](mailto:headgrader@gmail.com) by  
**Monday, Dec. 10, 4:00pm**

### **Final OneStop Page (bottom of Canvas)**

2. **Platform Debate** in discussion sections  
this week about immigration

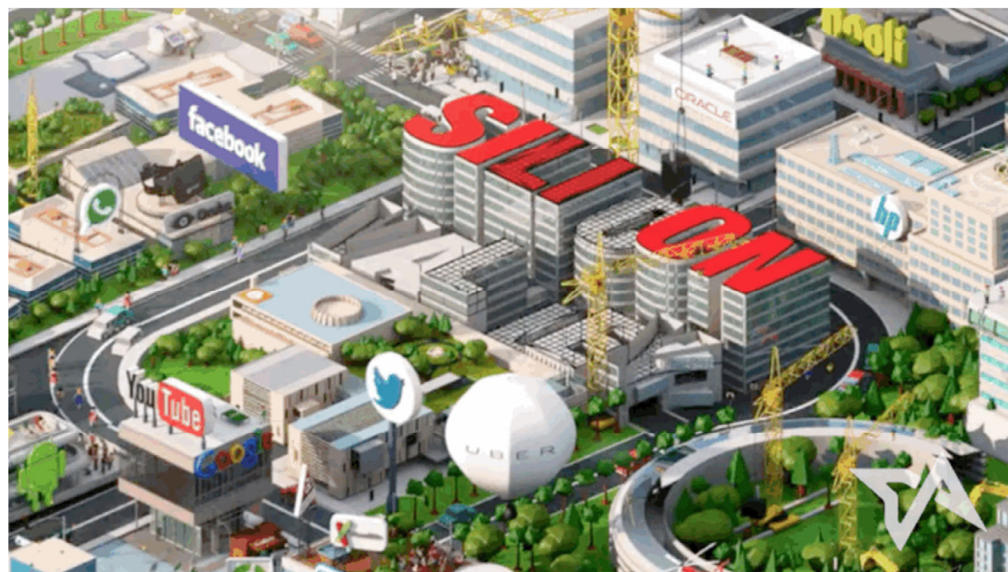
(Discuss in class today. See also link at  
Canvas for reading to do before the debate.)

## **Inequality**

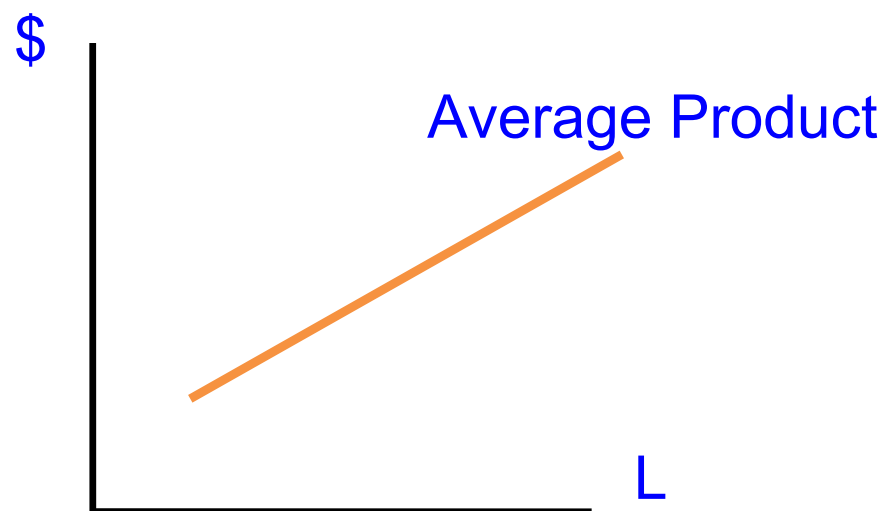
0. Finish Immigration
1. Mention three policies to debate  
about this week
2. Wage incentives and labor  
migration
3. Capital Flows

Case 1: Agricultural Economy:  
Double population, then lower  
productivity because of diminishing  
returns to fixed land.

Case 2: Manufacturing  
or Innovation Economy  
(No fixed factor like land)



Plot average product as a function  
of the population:



Case of increasing returns  
Mechanisms:

- Scale economies
- Greater product variety
- Knowledge spillovers and information sharing (think Silicon Valley)

The theory explaining the existence of cities

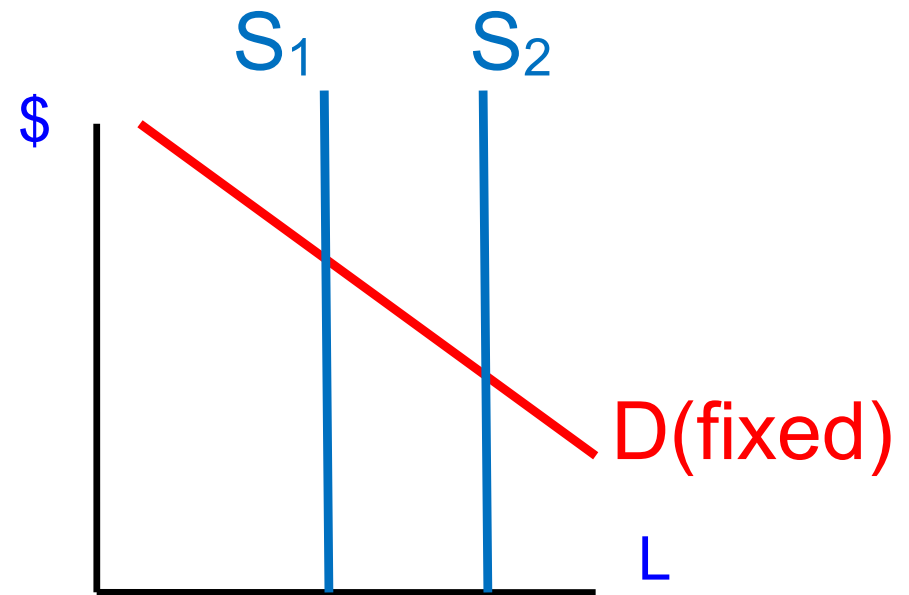
And why South Dakota is advertising to get people to move there.



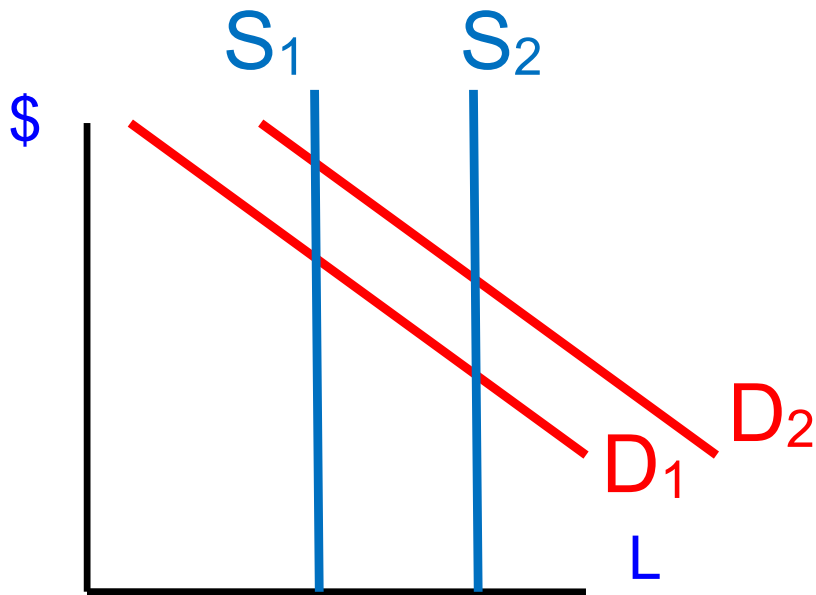
Watch clip

<https://youtu.be/HrX8OTFSFZI>

South Dakota is not thinking population inflows will do this:



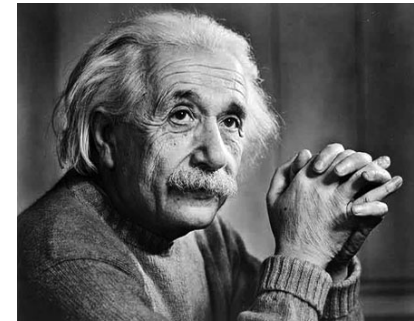
Rather, South Dakota thinking it looks like this or better:



Migrants increase the demand for labor (because they purchase things and can contribute to increasing returns)

So far have assumed migrants have the same skill. Now contrast **high skill versus low skill.**

Start with **high skill migrants**  
Examples:  
Albert Einstein

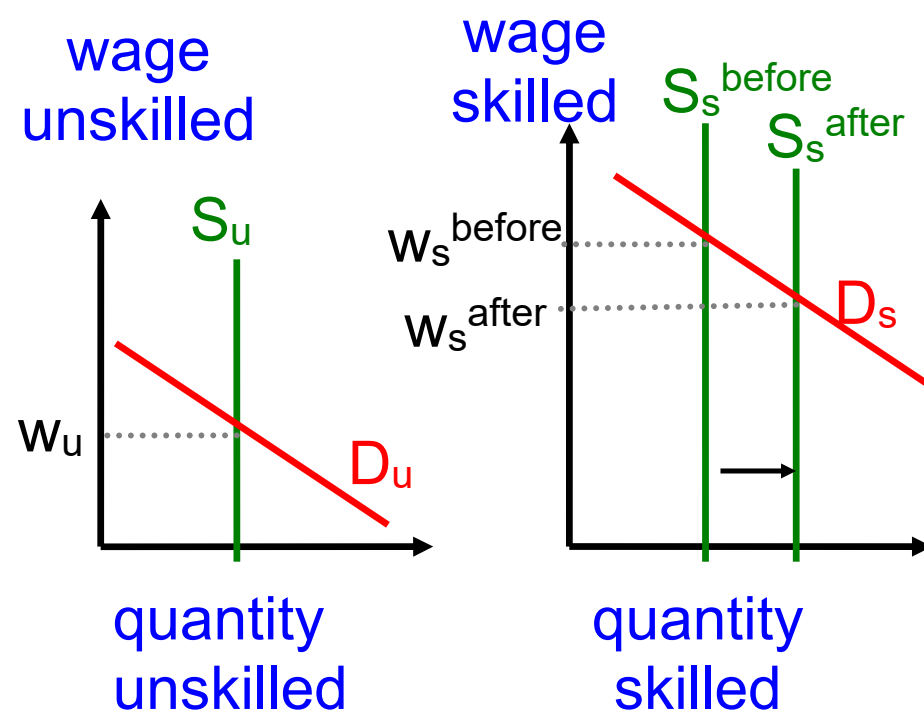


Sergey Brin  
(Russia)  
cofounder  
Google



Indra Nooyi (India)  
Chairman Pepsi  
Ramon Laguarte  
(Spain new CEO)

Effects of immigration by high skill?  
Suppose there is no increasing returns, no knowledge spillovers, and not shift in labor demand



Above doesn't take into account shifts in labor demand.

But even if we allow for increases in labor demand, if there are no increasing returns, then immigration of high skill labor, fixing the quantity of low skill workers, will reduce wages of skilled workers relative to unskilled.

But still we get a beneficial

## Fiscal Impact

High skill workers tend to pay more taxes than they cost in public service, so collectively we make money on them when they come.

Now take into account knowledge spillovers.

High skill immigrants can increase the productivity of other high skill workers.

High skill workers are the drivers of the knowledge economy.

Bad idea to tell Sergey Brin and Indra Nooyi to go back home!

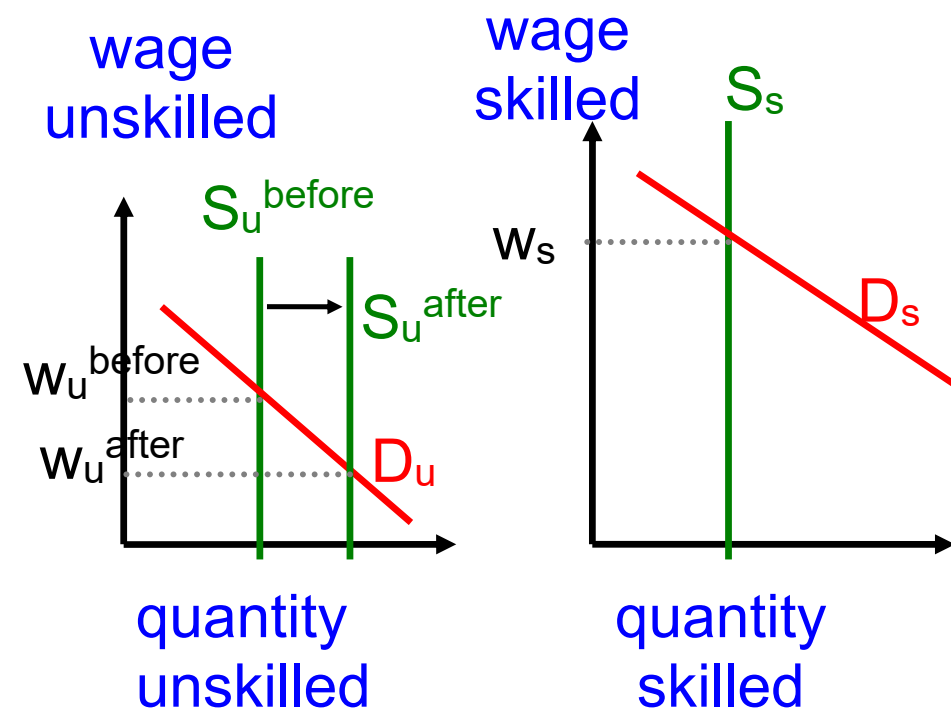
Immigration into the U.S. is limited, and preferences are mainly given to relatives.

There are some programs to allow skilled workers in, but it is a small percent of 1,000,000 immigrants a year.

H-1B program: 85,000 spots for highly-educated foreign professionals.

Excess demand for these slots filled by lottery. (In 2014, applications were considered April 1, by April 5, 124,000 application submitted, stopped collecting.

Next look at **low skill** immigration  
Without changes in labor demand  
we get



## Effects of low skill immigration

**low skill wage:** will fall relative to high skill wage

- decline will be relatively small if demand for unskilled labor is elastic because it is possible to outsource to foreign workers overseas, or to robots here

**fiscal impact:** Negative. Very low skill workers generally take out more in public services (public schools, health care), then they pay in taxes

**contribution to knowledge spillovers?:** Probably not, but maybe children of low skill

immigrants will become educated and create knowledge spillovers.

Note: above focuses entirely on economic issues. There potentially also cultural factors and political factors for citizens of a country might vote to limit immigration.

Japan: limits immigration and population is declining (-0.2% a year). Ethnically homogenous population, there seems to be political support to keep it that way.



## Policy Discussion

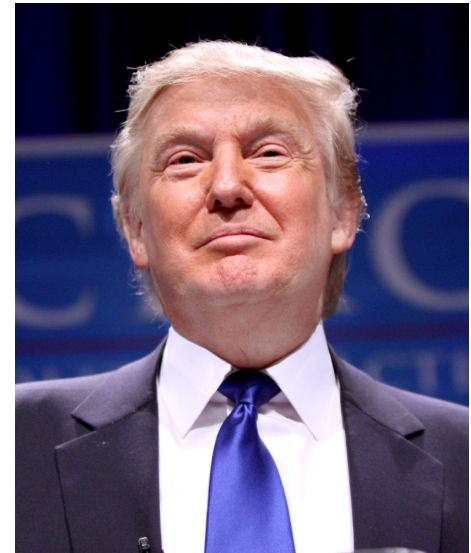
Background: DACA  
“Deferred Action Childhood Arrivals”

Program set up by Obama in 2012,  
rescinded by Trump in Sept 2017

Program to “defer action” on  
undocumented immigrants who  
came here as children and didn’t  
commit any crimes. Gives them a  
quasi-official status

800,000 registered

President  
Donald  
Trump



Policy:

- Deportation force to expel existing unauthorized immigrants.
- Build wall+more barriers to unauthorized immigration
- Reduce existing legal immigration
  - Get rid of family based
  - Get rid of lottery for 50k



Nancy Pelosi (likely House Speaker come January)  
Senate Minority Leader Chuck Schumer

Current Policy (gleaned from web sites)

- Reinstate DACA
- More generally go back to Obama policies

Back in the day presidential candidate Marco Rubio (not later Senate candidate who just wanted to talk about the wall).



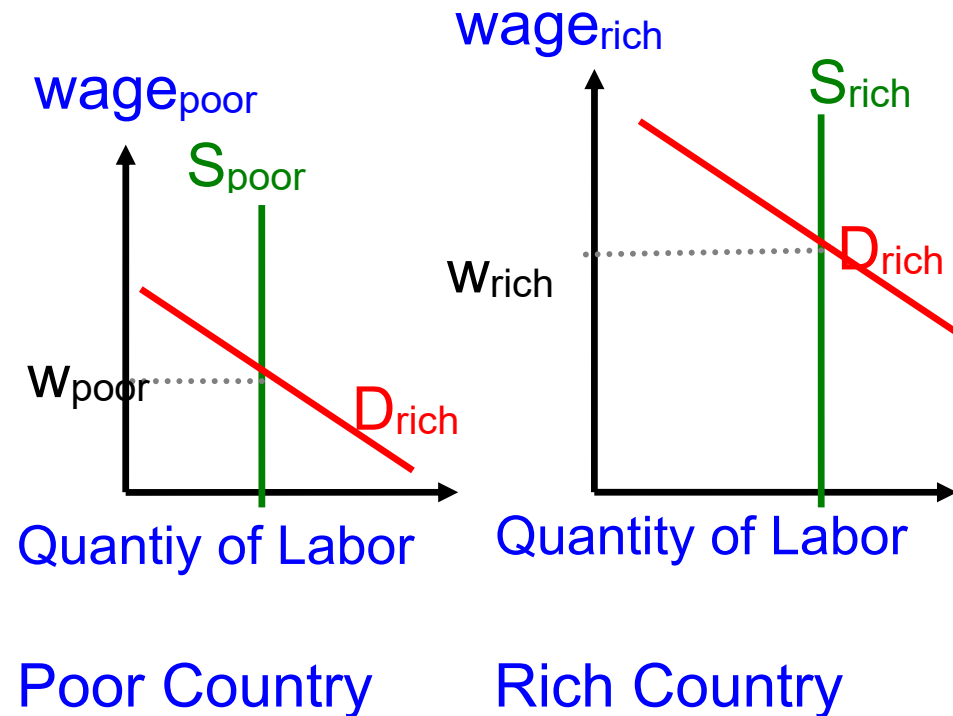
Platform

- Move away from immigration preferences based on relatives to preferences based on skill
- Somehow lock the door to new illegal immigration. Then integrate the 12 million undocumented immigrants already here with a drawn-out process that doesn't use the word amnesty.

“Gang of Eight plan” from 2013, which included Rubio and Schumer, was similar.

- For example, it proposed that we take away the 50,000 slots a year that U.S. gives away for the diversity lottery, and instead give them out on a merit-based system.

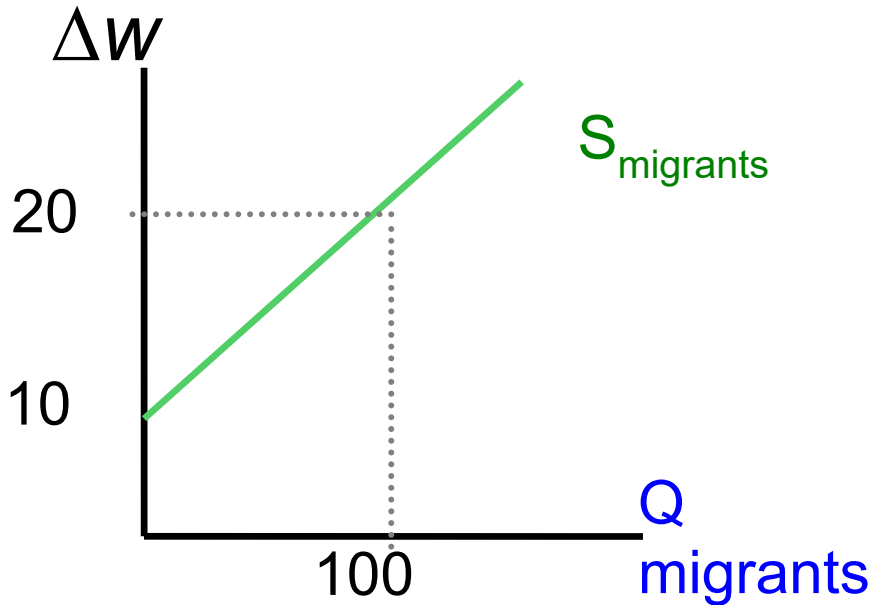
## Migration and Wages



Wage incentive to move

$$\Delta W = W_{rich} - W_{poor}$$

Supply of migrants will depend upon this incentive. Maybe looks like



At  $\Delta w = 0$ , no one moves because of attachment to family.

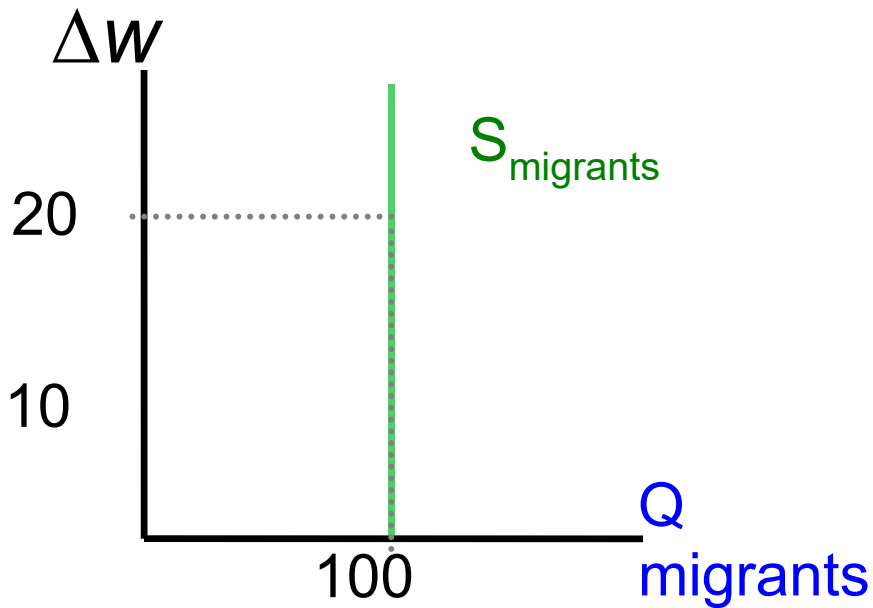
Need the differential to get to 10 in this example before inducing migration.

Suppose the wage difference is \$20, then equilibrium migration is 100.

Now suppose the rich country imposes costs, making it harder to get in. (Trump's wall.) Suppose have to pay \$10 to a smuggler to get in. What happens to immigration?

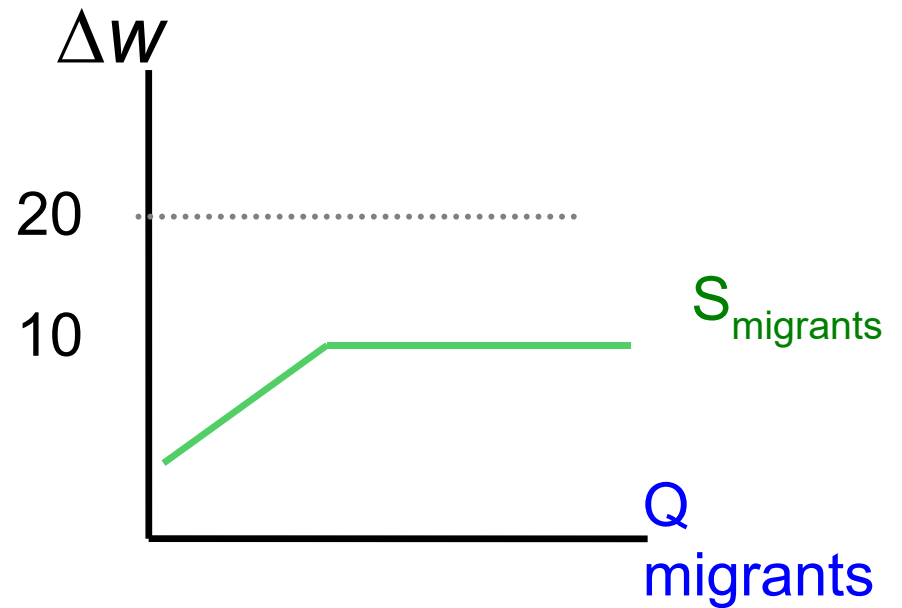
But then what happens if the wage difference goes above \$20?

Let's talk about the refugee crises throughout the world. Suppose the supply of migrants looks like this:



Imposing barriers obviously a bad idea. Get humanitarian disaster, and number of migrants is unchanged.

But suppose it looks like this, and there are no barriers....



## Capital Flows

Like people, capital will try to move to seek the highest returns.

Usually easier to move capital than people.

Suppose a small open economy.  
Takes a given a fixed global rate of return on capital.

What happens when the country taxes capital?

In particular, what happens to the marginal product of capital?

In equilibrium, what happens to the marginal product of labor?

Compare all of these answers with a closed economy.