

# **(VI) Migration Flows and Policies**

Bocconi University, April 2009

# Outline

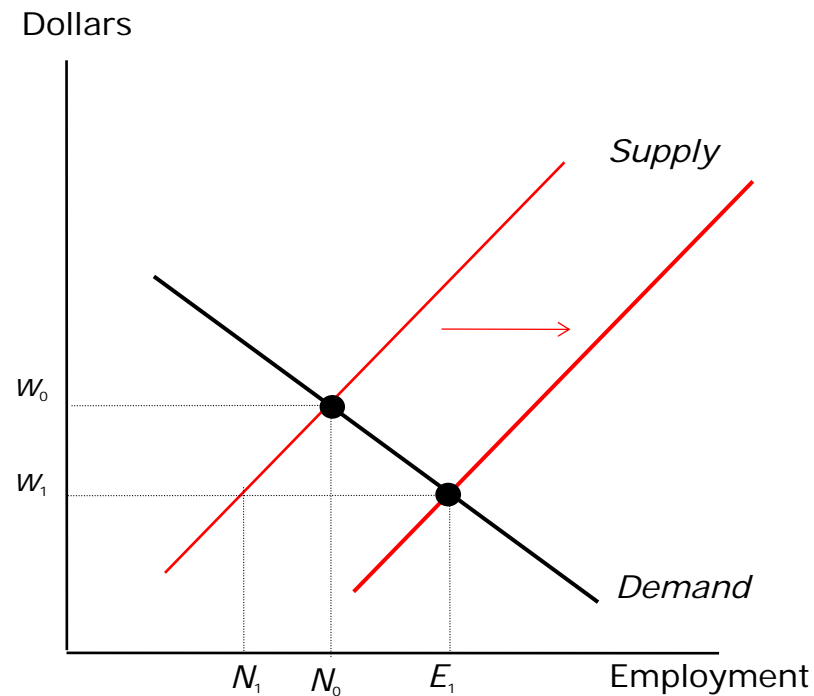
We'll tackle 3 questions in order (both theoretically and empirically):

1. What's the impact of immigration for the host country? Positive & normative view
2. Why do individuals/families migrate?
3. Who decides to migrate (e.g., skill content)?

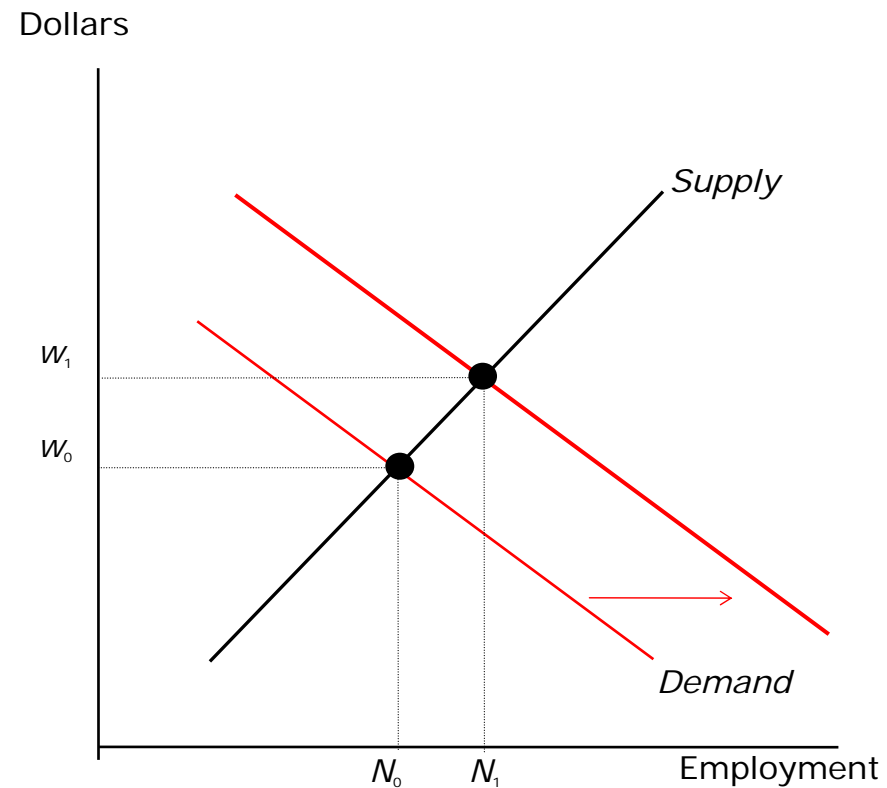
# 1.1 – Impact of immigration for natives (positive perspective)

- Assume immigrants and natives are **perfect substitutes** in production. As immigrants enter the labor market, the supply curve shifts to the right
  - Total employment increases
  - The equilibrium wage decreases
- Increases in immigration reduce the wages and employment of native-born workers
- However, native-born workers may be able to increase their productivity since they can specialize in tasks better suited to their skills. Hence, **complementary** native workers will have higher wages

# The short-run impact of immigration when immigrants and natives are perfect substitutes



# The short-run impact of immigration when immigrants and natives are complements



# Empirical (spatial) tests

- Previous theory suggests simple way to test whether immigrants are substitutes or complements:
  - Compare earnings of natives in cities/regions with different incidence of immigration
- These spatial tests usually detect small (negative, if any) effect of immigration on natives' wages or employment prospects

# Influential study by Card (1990)

- Natural experiment: in April 1990, Castro declares that it's possible to leave Cuba from the port of Mariel
- 125,000 leave Cuba (including Tony Montana, alias Al Pacino) for Miami
- *Aim*: estimate impact of Mariel Boatlift immigration on low-skilled US workers
- *Identification strategy*: diff-in-diff comparing treated (Miami) vs. control cities (Atlanta, LA, Houston & Tampa). See Figure 1 in the handout

# Diff-in-diff econometric framework

- Treatment: labor market receiving Mariel boatlift shock
- Potential outcomes in city  $c$  at time  $t$ :
  - $E(Y_{1i}|c,t)$  observable if  $c=\text{Miami}$  &  $t>1980$
  - $E(Y_{0i}|c,t)$  observable otherwise
- Impose restrictions on conditional mean  $f$ :
  - $E(Y_{1i}|c,t) = \beta_t + \gamma_c + \delta$
  - $E(Y_{0i}|c,t) = \beta_t + \gamma_c$

# Diff-in-diff econometric framework (contd.)

- Then:

$$\begin{aligned} & [E(Y_i|c=\text{Miami},t=1981)-E(Y_i|c=\text{other},t=1981)] - \\ & [E(Y_i|c=\text{Miami},t=1979)-E(Y_i|c=\text{other},t=1979)] \\ & = \delta \text{ (treatment effect)} \end{aligned}$$

- If  $M_i$  dummy equal to Miami after 1980:
  - $Y_i = \beta_t + \gamma_c + \delta M_i + u_i$  (by OLS)
  - $Y_i = X_i' \beta_0 + \beta_t + \gamma_c + \delta M_i + u_i$  (by OLS)
- Key identifying assumption: common trend
- See Table 4 in the handout for the results

# Are spatial tests credible?

- Econometric “caveat”: diff-in-diff assumption may be violated
  - Angrist and Krueger (1999): the “Mariel Boatlift That Never Happened” in 1994 (Clinton Administration)
  - This placebo test on “missed” natural experiment shows significant estimates! See Table 7 in the handout: diff-in-diff gives +6.3 (s.e. 3.7) on unemployment of Blacks

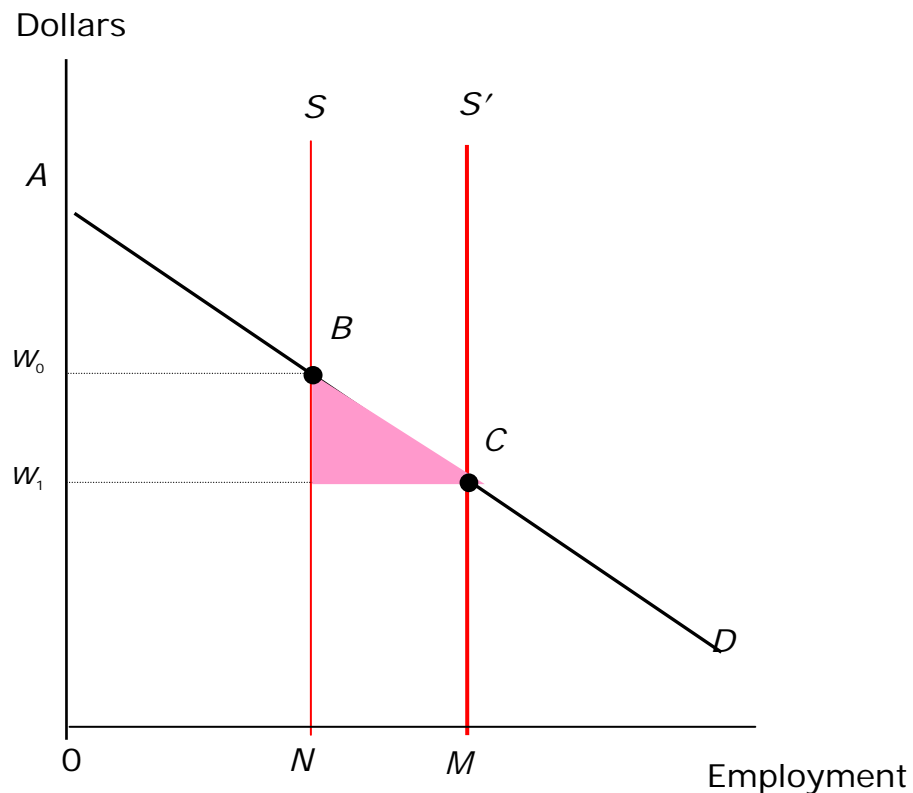
## Are spatial tests credible? (contd.)

- Theoretical “caveat”: if workers/firms vote with their feet, macro effect is not captured
  - First case: labor mobility. Supply falls in treated cities & increases in control cities
  - Second case: capital mobility. Demand increases in treated cities
  - But: spatial tests still capture short-run effect and something more if mobility is less than perfect

## 1.2 – Impact of immigration for natives (normative perspective)

- Efficiency result: migration/mobility efficient for the social planner
- If  $W=MP$ , workers migrate to areas with higher wages, and social planner would like to do the same (i.e., move people to areas with higher MP)
- But: in the real world, frictions because of information & mobility costs & compensating wage differentials
- And also because of policies (inefficient?)

# Immigration surplus



Prior to immigration, there are  $N$  native workers in the economy and national income is given by the trapezoid  $ABNO$ . Immigration increases the labor supply to  $M$  workers and national income is given by the trapezoid  $ACMO$ . Immigrants are paid a total of  $FCMN$  dollars as salary. The immigration surplus gives the increase in national income that accrues to natives and is given by the area in the triangle  $BCF$ . But: firms gain while native workers lose (adjustment costs). Also note: no surplus if no wage loss (flat  $D$ ).



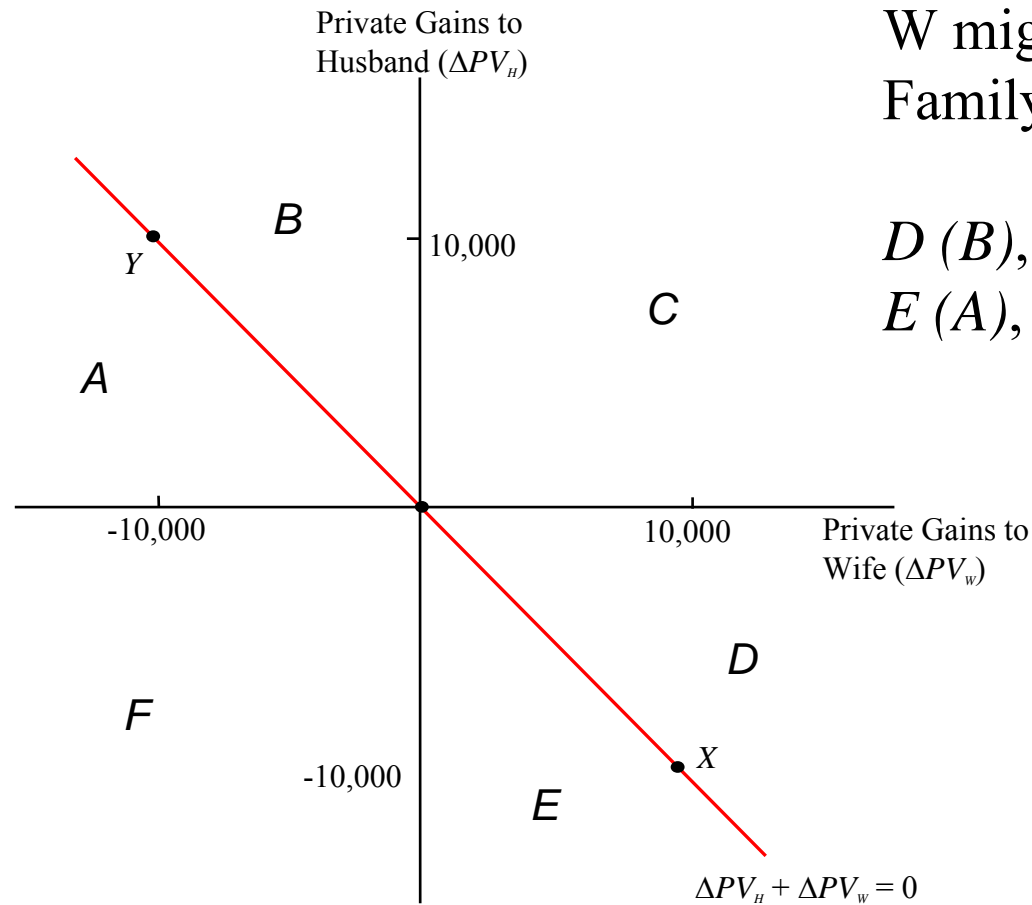
# Imperfect labor markets

- In imperfect labor markets, migration may affect income of natives in various ways:
  - changes in wages
  - changes in employment, and
  - changes in unemployment
  - taxes
  - other externalities related to U? (crime?)

## 2 – Why do people move?

- Migration as human capital investment:
  - $PV_H = w_H + w_H/(1+r) + \dots + w_H/(1+r)^N$
  - $PV_D = w_D + w_D(1+r) + \dots + w_N/(1+r)^N$
- Worker migrates if:  $PV_{D-M} > PV_H$ 
  - where M are economic and psychological mobility costs
- Then:
  - $w_H \uparrow$       Prob migration  $\downarrow$
  - $M \uparrow$       Prob migration  $\downarrow$
  - $w_D \uparrow$       Prob migration  $\uparrow$
- Migrants usually younger and more educated
- Return and repeat migration

# Migration as a family decision



H migrates in *A*, *B*, and *C*

W migrates in *C*, *D*, and *E*

Family migrates in *B*, *C*, and *D*

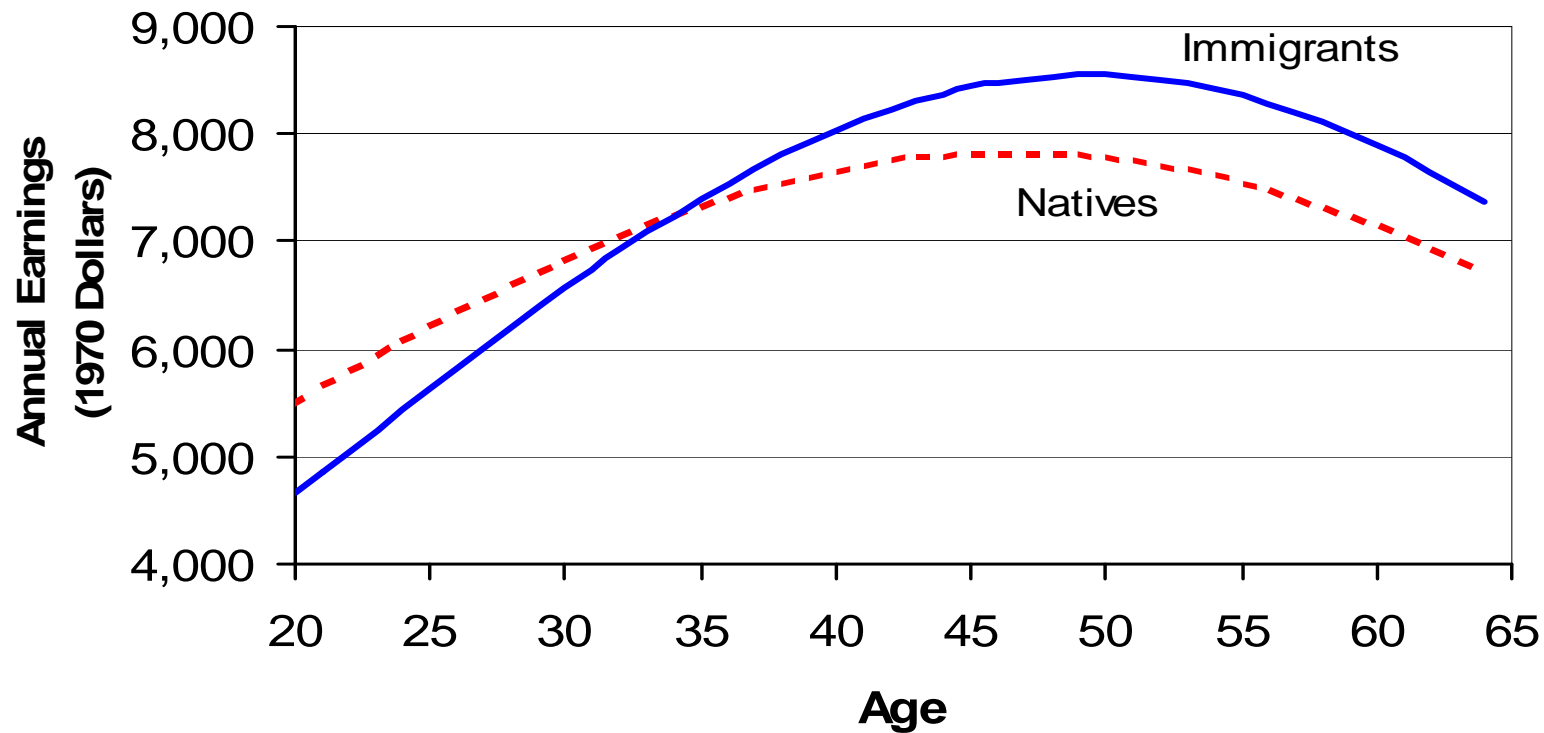
*D* (*B*), husband (wife) tied mover

*E* (*A*), wife (husband) tied stayer

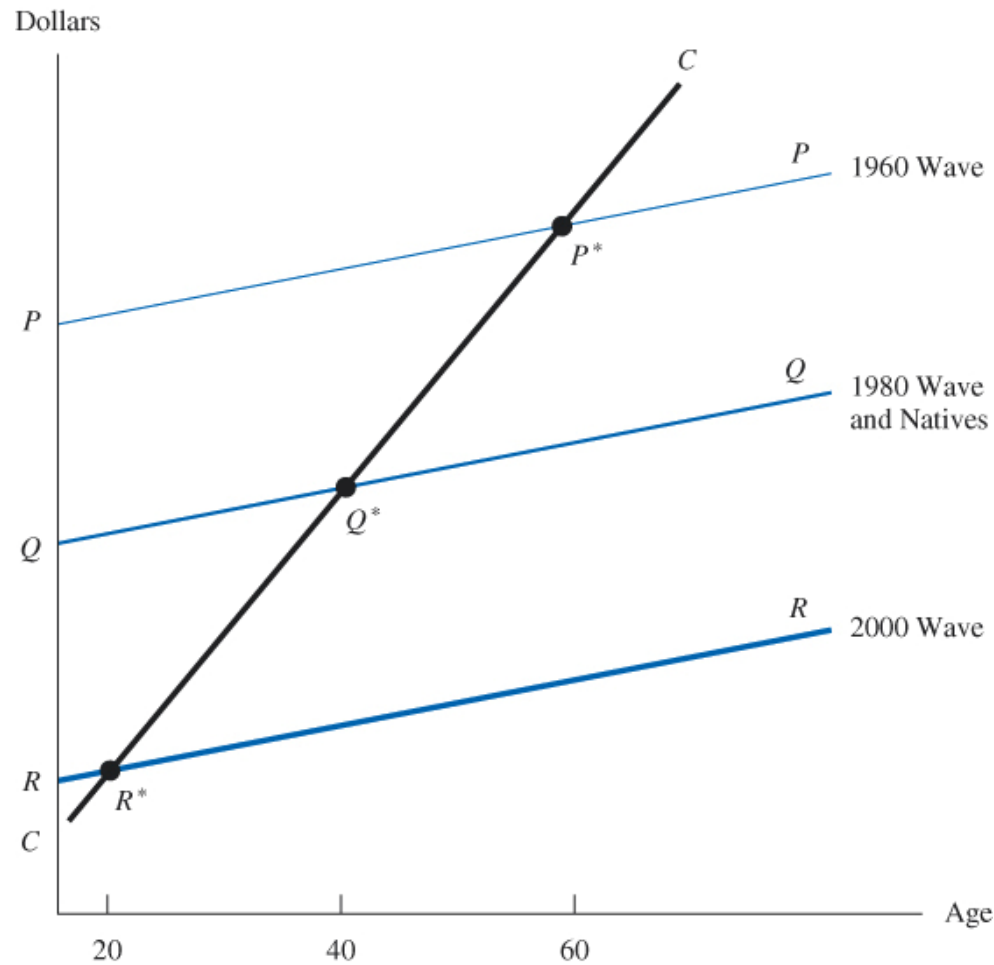
# 3 – Who decides to move?

- Deterioration in **quality** of migrants can be mistaken for **assimilation** of migrants
- Data problem
- Assume that wages of migrants follow this path:
  - $W = \beta_0 + \beta_1 \text{ Age} + \beta_2 \text{ Cohort}$
  - Since  $\text{Cohort} = (\text{Time} - \text{Age})$ :  $W = \beta_0 + (\beta_1 - \beta_2)\text{Age} + \beta_2 \text{ Time}$
  - Then:  $(\beta_1 - \beta_2) > \beta_1$  if  $\beta_2 < 0$
- Look at following graph:
  - Lower starting point for immigrants (lack of specific skills)
  - Steeper age-earnings profile (consistent with human capital theory)
  - Immigrants end up earning more than natives (positive selection?)

# The age-earnings profile of immigrants and natives in the cross-sectional evidence



# The age-earnings profile of immigrants and natives in repeated cross sections: An example

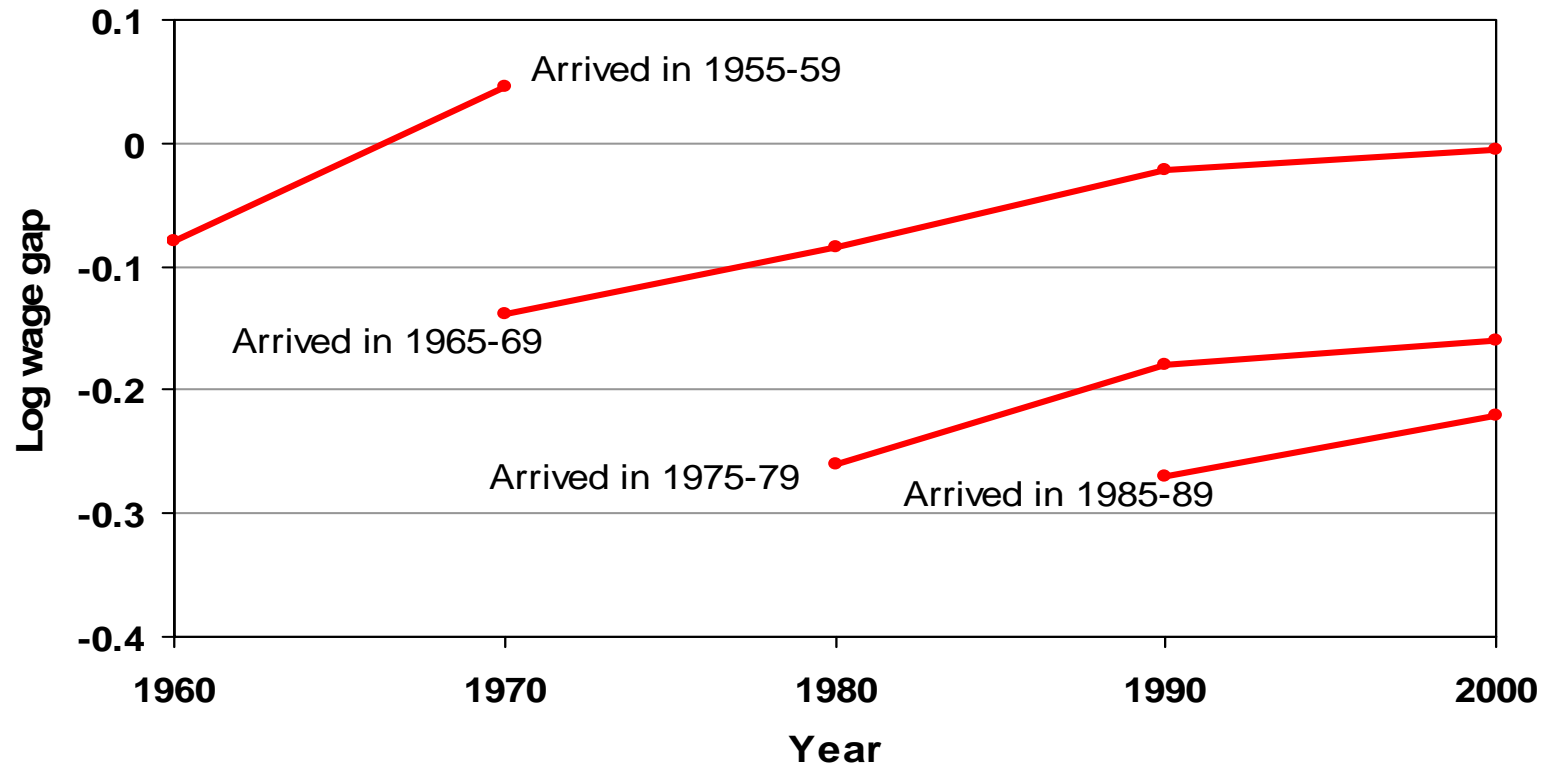


Assuming workers migrate at age 20

No convergence, but simple cohort effects

# Evolution of wages for specific immigrant cohorts: longitudinal evidence

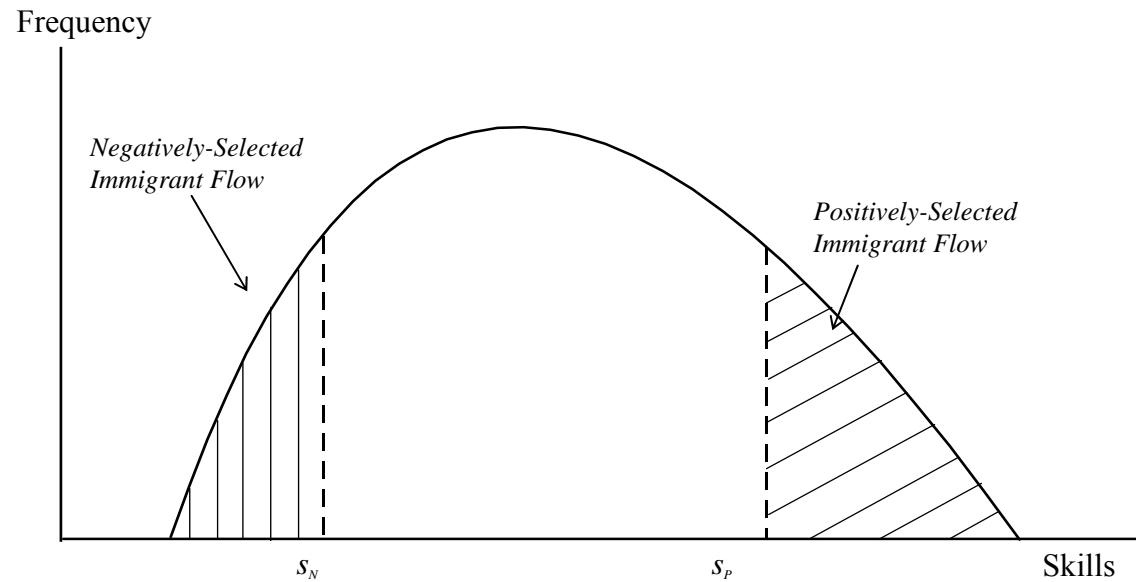
Relative wage of immigrants who arrived  
when they were 25-34 years old



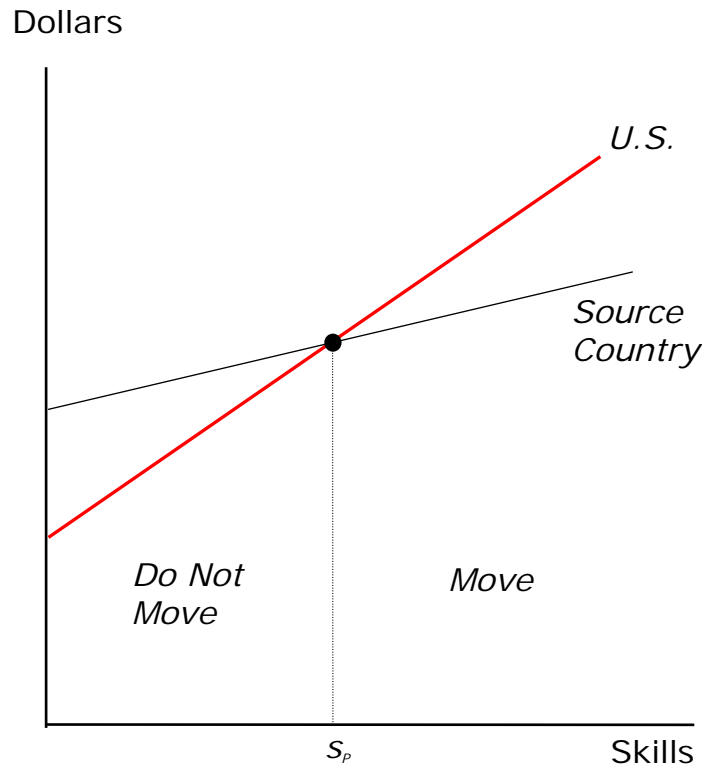
# The Roy model

- Decision to migrate when skills are heterogeneous
- Returns to skills different in 2 countries
  - $W_H = \alpha_0 + \alpha_1 S$
  - $W_D = \beta_0 + \beta_1 S$
- Workers migrate if:  $\beta_0 + \beta_1 S > \alpha_0 + \alpha_1 S$
- $\beta_1 > \alpha_1$ : inequality higher in destination country
  - **positive selection** (brain drain)
- $\beta_1 < \alpha_1$ : inequality higher in home country
  - **negative selection**
- That is: the relative payoff for skills across countries determines the skill content of immigration flows

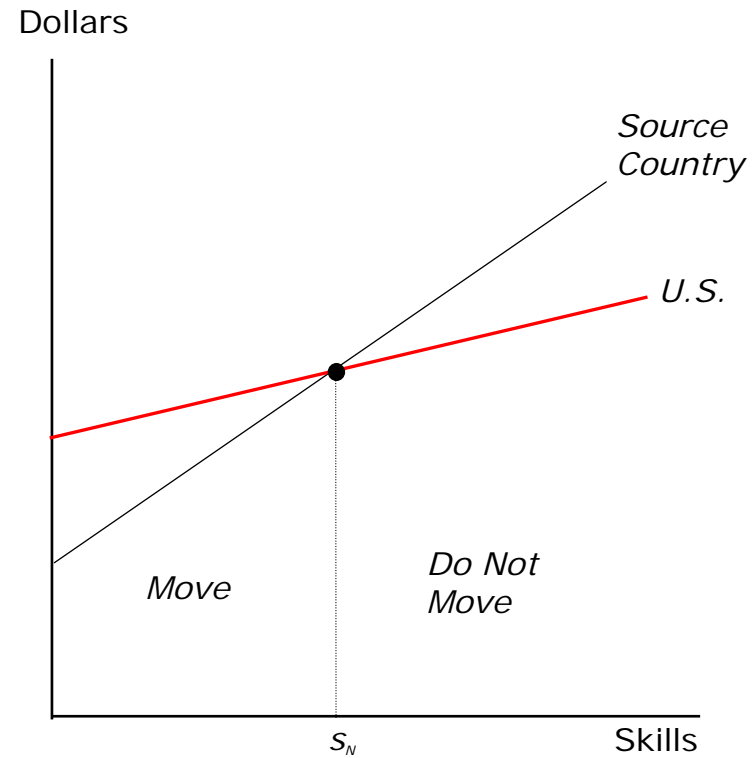
# The distribution of skills in the home country



# The self-selection of the immigrant flow

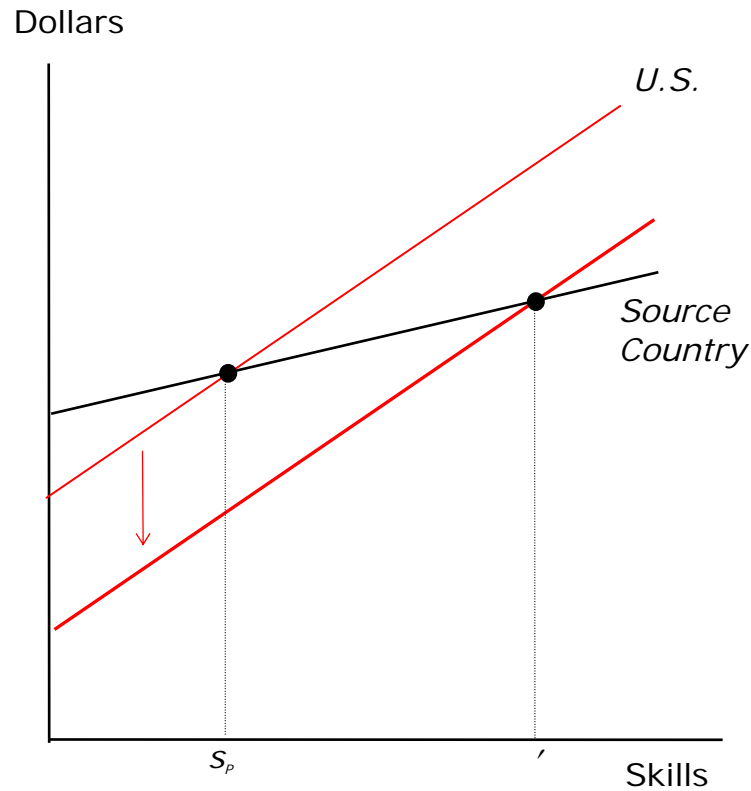


(a) Positive selection

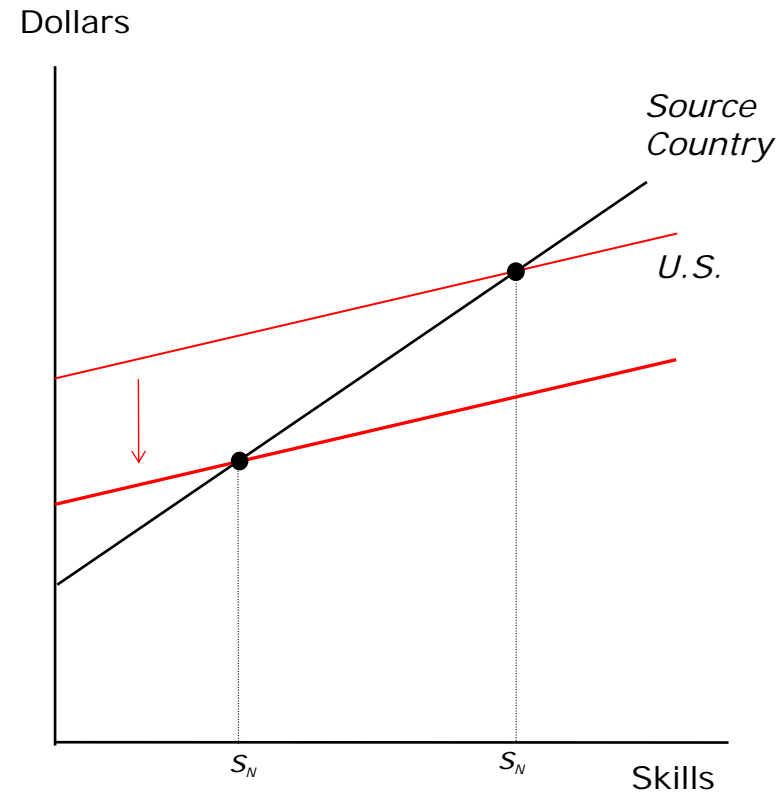


(b) Negative selection

# Comparative statics: decline in U.S. income or increase in mobility costs

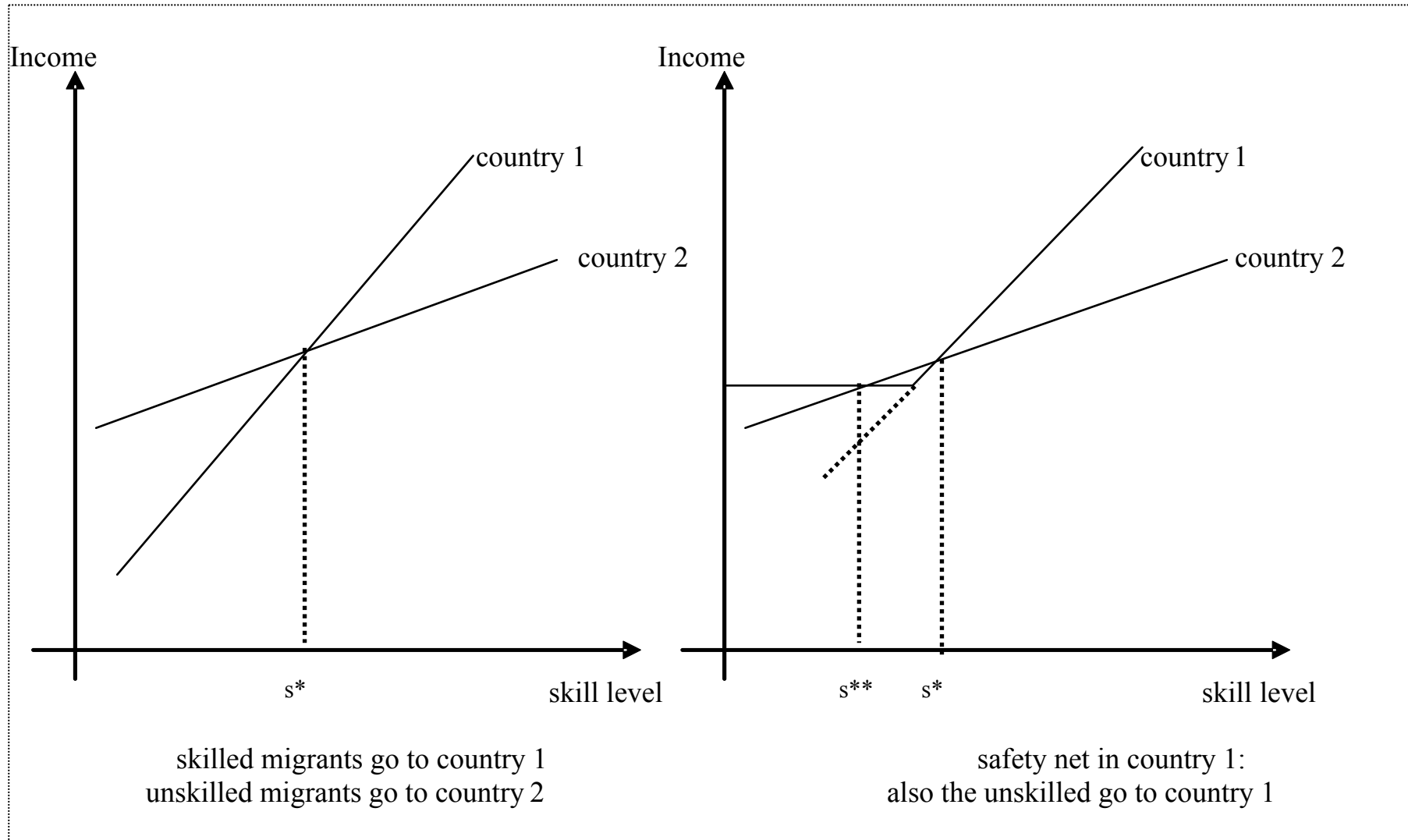


(a) Positive selection



(b) Negative selection

# Migration and a minimum guaranteed income



## The Roy model (contd.)

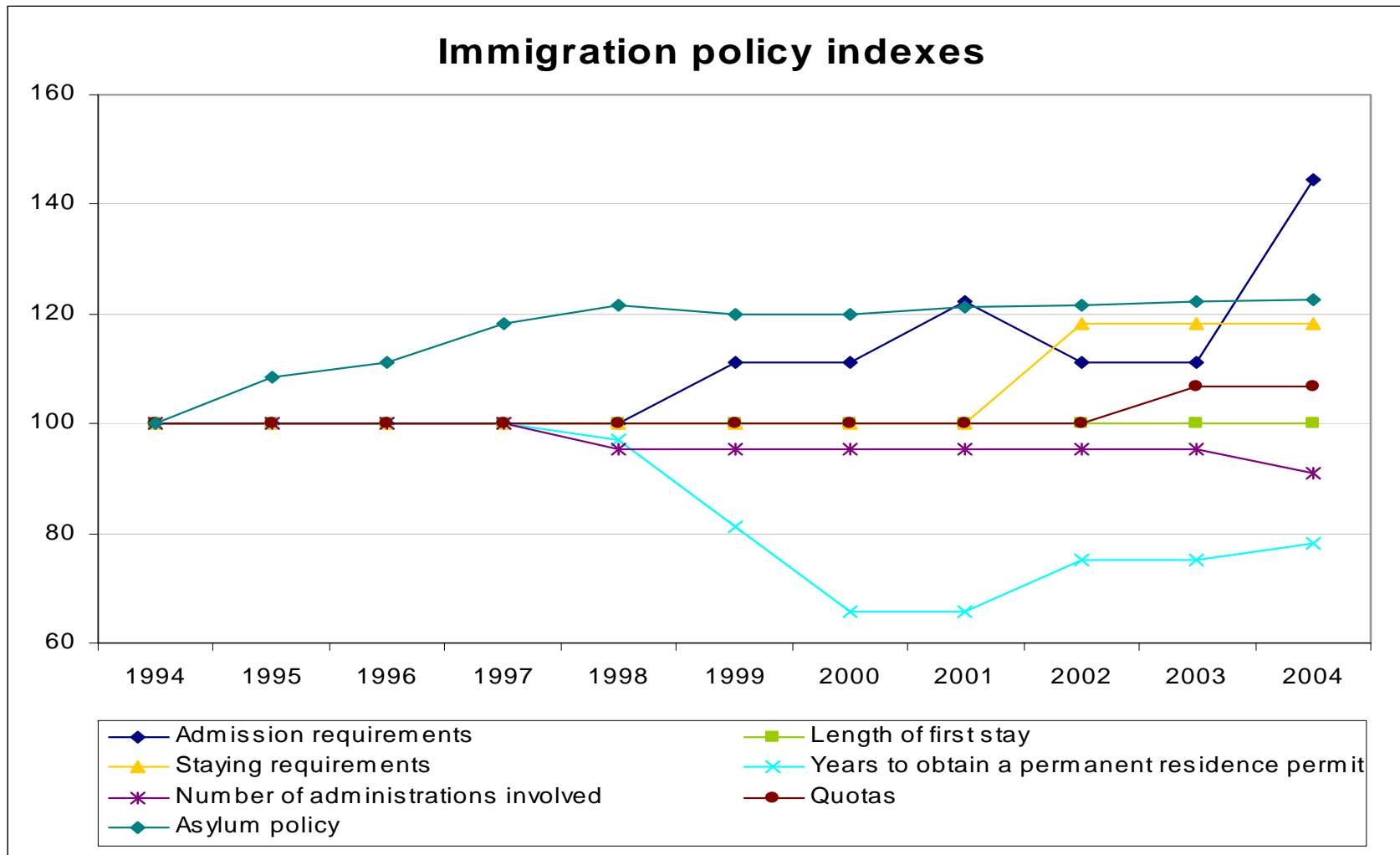
- So far, we have assumed positive correlation of skills returns in home and destination country
- But it could be negative: e.g., **refugee sorting** (which is a kind of positive selection)
- Empirical evidence somehow consistent with implication of Roy model:
  - The higher earnings inequality in the home country, the lower earnings of immigrants in the destination country

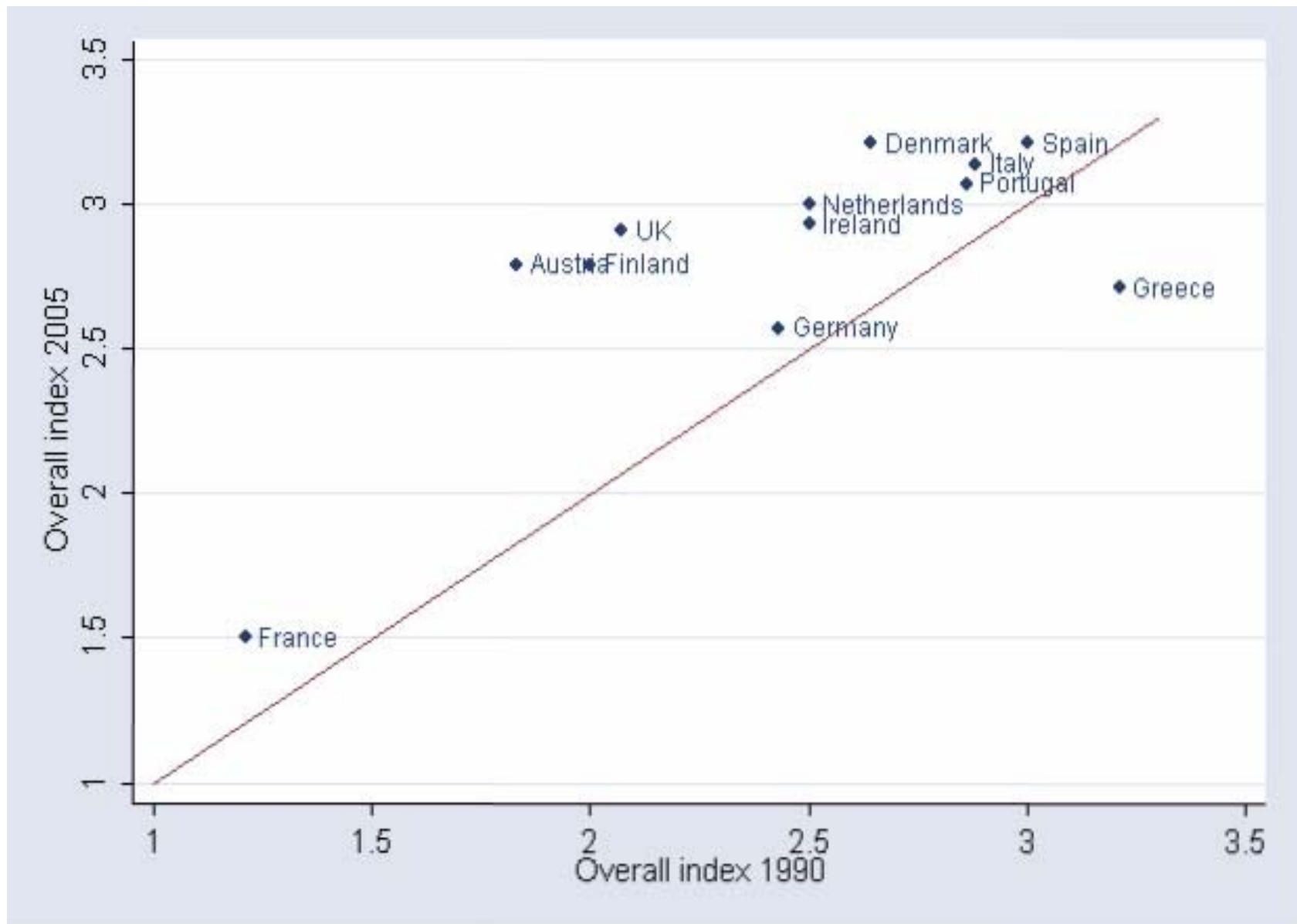
# Appendix – What about policies?

- Migration as great absentee in the era of globalization. Migration policies restrict the movement of persons across countries by establishing:
  - quotas in terms of maximum number of work permits;
  - rules concerning the allocation of quotas, admission procedures and length of permits;
  - years/procedures to obtain citizenship;
  - rules for asylum policies.
- Political economy reason: redistributive policies favoring low-skilled workers

	Existence of quota System	Admission requirements	Years to obtain permanent residence	Residence requirements	Length of first stay	Overall index
		(1)	(2)	(3)	(4)	(5)
Austria	yes	5	5	3	2	2.8
Denmark	no	6	7	4	4	3.2
Finland	no	4	4	2	4	2.8
France	no	3	5	1	2	1.5
Germany	no	6	5	4	2	2.6
Greece	no	4	10	3	2	2.7
Ireland	no	6	10	3	2	2.9
Italy	yes	6	6	3	2	3.1
Netherlands	no	5	5	2	4	3.0
Portugal	yes	6	5/8	3	2	3.1
Spain	yes	6	5	2	2	3.2
UK	no	3	10/14	1	2	2.9

# Trends in migration policies (FRDB)



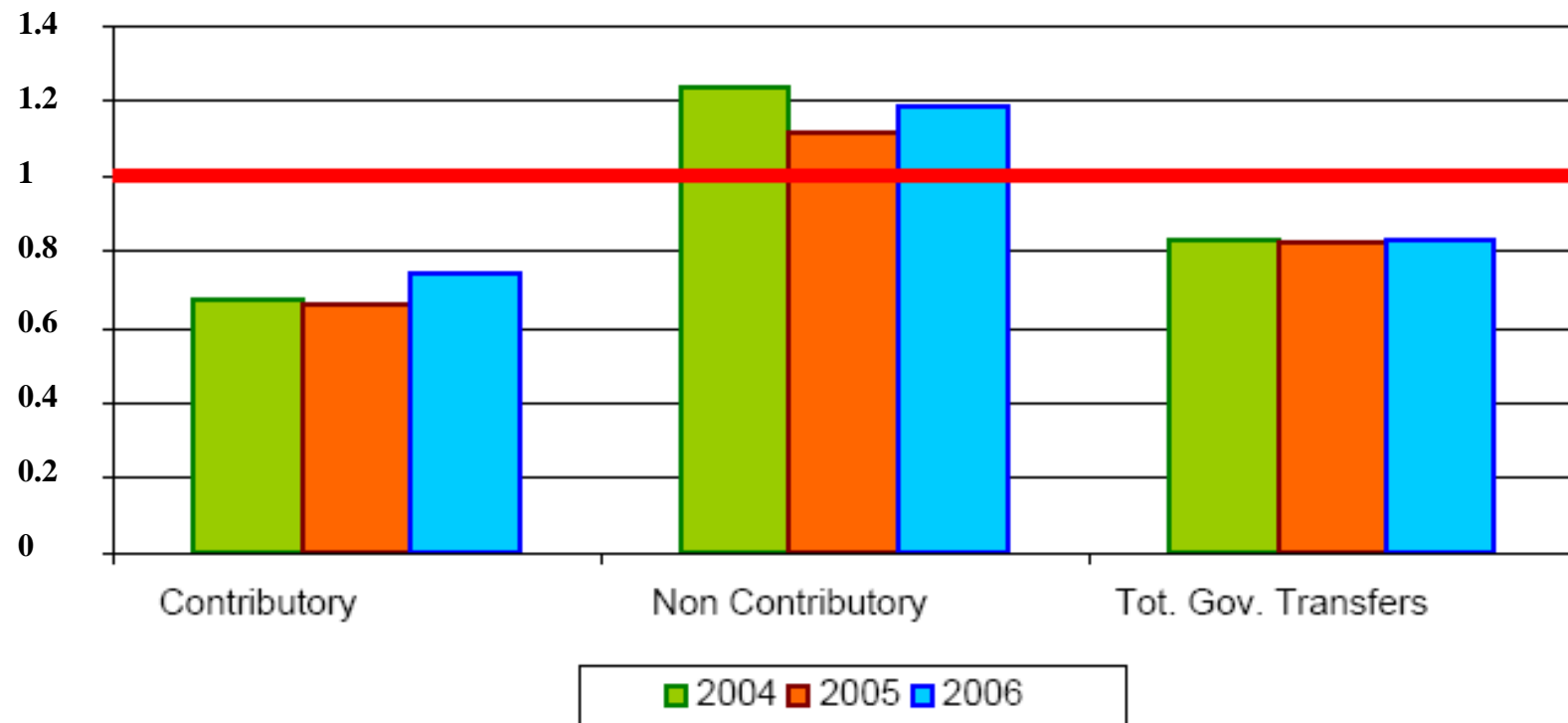


# Closing the welfare door?

- Restricting immigration inefficient, but what about welfare policies?
- Closing welfare door popular policy. It would address concerns of public opinion
- It would affect the size of migration flows more than their skill composition
- Difficult to enforce
- Problems in the assimilation of migrants
- Equity considerations

# Fiscal effects

Migrant to natives odds ratios of the receipt of various types of transfers in the EU



# Adopting a point system?

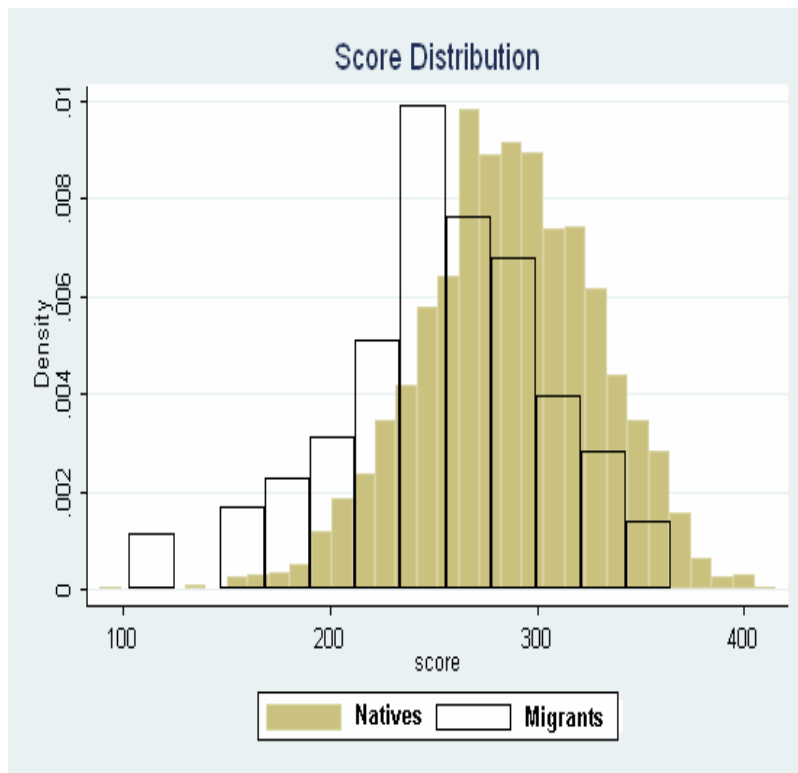
- Skilled migration is better for rigid countries
- Simplification of policies (including asylum)
- Is it effective in selecting migrants?
- Risk of “brain drain”?
- Equity considerations

# Migration policies are already getting selective

- Everywhere tightening of migration policies towards the unskilled
- While race to attract highly skilled migrants
- Explicit point systems in an increasing number of countries (Canada since 67, Australia since 84, New Zealand since 91, Switzerland since 96)

# Skill distribution of migrants and natives (IALS scores)

Germany



New Zealand

