

Economics of Migration

Mario Lavezzi¹

¹University of Palermo
mario.lavezzi@unipa.it

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The Economics of Migration: General Issues

Why people migrate/who are the migrants?

- IOM (2019): recent years witnessed phenomena that pushed people to leave their country: examples are the conflicts (ex. Syria, Yemen, the Democratic Republic of Congo, South Sudan); the repression of the Rohingya people in Myanmar, the political instability in Venezuela. Not to mention the pressure on migration caused by environmental hazards (drought, desertification, etc.).
- Migration can be connected to sudden events such as wars, political crises, earthquakes, etc. or to long-term factors such as the differences in economic development or in demographic patterns.

The Economics of Migration: General Issues

Why people migrate/who are the migrants?

- Some numbers from IOM (2019):
 - i) the number of international migrants in 2019: 272 million (3.5% of the world's population), of which 2/3 were "labor migrants";
 - ii) 74% of all international migrants were of working age (20-64 years);
 - iii) India had the largest number of migrants living abroad (17.5 million), followed by Mexico and China (11.8 million and 10.7 million respectively).
 - iv) the top destination country remained the United States (50.7 million international migrants);
 - v) 52% of international migrants were male; 48% were female but, in 2017, there were 96 million male migrant workers (58%) and 68 million female migrant workers (42%);

The Economics of Migration: General Issues

Why people migrate/who are the migrants?

- vi) The global refugee population was 25.9 million in 2018 (52% of the global refugee population was under 18 years of age). The Syrian Arab Republic and Turkey were the origin and host of the largest number of refugees globally, 6.7 million and 3.7 million, respectively. Canada became the largest refugee resettlement country, resettling more refugees than the United States in 2018.
- vii) Migration patterns vary from region to region. While most international migrants born in Africa, Asia and Europe reside within their regions of birth, the majority of migrants from Latin America and the Caribbean, and Northern America reside outside their regions of birth. More than half of all international migrants (141 million) lived in Europe and Northern America

The Economics of Migration: General Issues

Why people migrate/who are the migrants?

- Definition of migrant: a person who live in a different country from the one where s/he is born.
- This is the case of international migration. There can also be cases of within-country migration such as migration across different regions, migrations from the country to the city (rural-urban migration).
- Migration is a complex phenomenon (Bodvarsson and Van den Berg, 2013, p. 4): different social/economic groups are affected.
- For some of them the effects are/seem negative, while for others the opposite occurs. If immigrant workers enter a certain destination country, the workers more in competition with them will see this unfavorably. The abundance of a factor of production will however be seen favorably by the firms.

The Economics of Migration: General Issues

Why people migrate/who are the migrants?

- On the other hand, migrants will become new consumers, which implies that the demand for some goods, and of the factors of production involved, which includes the native workers, will increase.
- However, migrants often have different cultures, which might create tensions with the natives along cultural (e.g. religious) lines.
- On the other hand, migrants carry with them new ideas, whose importance for economic growth is nowadays undisputed.

The Economics of Migration: General Issues

Why people migrate/who are the migrants?

- The economic approach to migration sees the process as dependent on the costs and benefits of migration.
- Migration is a decision: it is not a process by which some people are randomly selected and then migrate.
- It is based on individual (or family) evaluations of the costs and benefits of migrating.

The Economics of Migration: General Issues

Why people migrate/who are the migrants?

- In its utmost simplicity, the decision to migrate occurs when the benefits of migration are greater than the costs.
- For example, for individual i , the decision to migrate takes place when the index I_i is positive, i.e. when:

$$I_i = B_i - C_i > 0 \quad (1)$$

where B_i are the benefits for individual i and C_i are the costs.

The Economics of Migration: General Issues

Why people migrate/who are the migrants?

- The set of factors that can affect B_i and C_i is large and heterogeneous.
- In the migration literature, a traditional distinction is made between push factors and pull factors.
- Push factors are those that make the stay in the country of origin problematic (or costly), while pull factors are those that make the destination country attractive.
- Bodvarsson and Van den Berg (2013, Fig.1.1) summarize these factors, adding two sets of “Stay factors” and “Stay away” factors.

The Economics of Migration: General Issues

Why people migrate/who are the migrants?

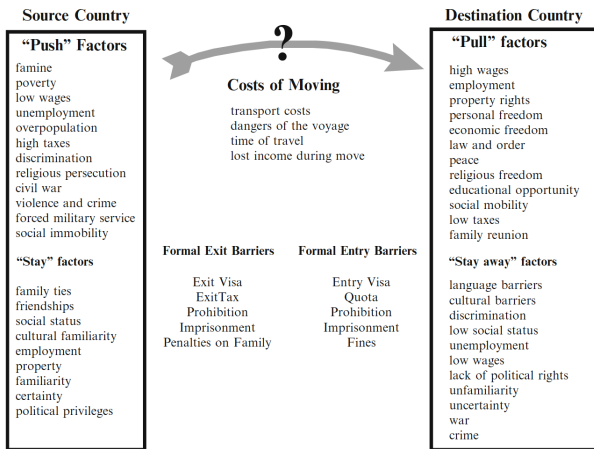


Fig. 1.1 The immigration decision

Figure 1: “Push”, “Pull”, “Stay” and “Stay away” factors (Bodvarsson and Van den Berg, 2013)

The Economics of Migration: General Issues

Why people migrate/who are the migrants?

- The economic approach relates the decision to migrate especially to labor markets: “differences in net economic advantages, chiefly differences in wages, are the main causes of migration” (J. Hicks, *The Theory of Wages*, p. 36, in Borjas, 2014, p. 9)
- Let us introduce a simple economic model of the decision to migrate.

The Economics of Migration: General Issues

Why people migrate/who are the migrants?

- Consider two countries: country of origin O , and country of destination D .
- The decision to migrate from country O to country D for individual i depends on the value taken by the index I_i , now defined as:

$$I_i = w_i^D - w_i^O - C_i \quad (2)$$

where w_i^D is the (expected) flow of salaries in country D , w_i^O (expected) flow of salaries in country O , and C_i is the cost of migration for individual i (see Frattini, 2015, p. 459).

The Economics of Migration: General Issues

Why people migrate/who are the migrants?

- Bodvarsson and Van den Berg (2013, pp. 33 and 39) show formulations that keep the essential aspects of Eq. (2) but explicitly introduce the aspects of:
 - i) *time*, i.e. the number of periods ahead which are included in the computation of the flows of wages (or pecuniary returns) appearing in Eq. (2);
 - iii) the probability of unemployment in the destination country, which should imply the consideration of a probability of employment in the formulation of the expected flow or returns from migration in Eq. (2).

The Economics of Migration: General Issues

Why people migrate/who are the migrants?

- The forgone flow of salaries in country O represents an opportunity cost of migration: it is the value of the option that an emigrant give up by leaving his/her home country.
- When $I_i > 0$ individual i decides to emigrate to country D , when $I_i < 0$ individual i decides to stay in country O .

The Economics of Migration: General Issues

Why people migrate/who are the migrants?

- The decision to migrate, however, is often taken within a family.
- Consider a family f composed of two members, 1 and 2.
- The choice to migrate depends on the value of the following index:

$$I_f = I_1 + I_2 \quad (3)$$

The Economics of Migration: General Issues

Why people migrate/who are the migrants?

- If $I_f > 0$ the family will decide to migrate.

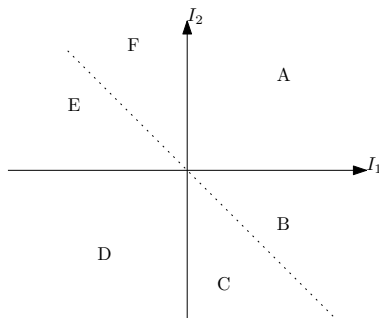


Figure 2: The family choice to migrate. Source: Frattini (2015)

The Economics of Migration: General Issues

Why people migrate/who are the migrants?

- The decision to migrate is taken in the areas A, B, and F, where $I_f > 0$ (along the dotted line $I_f = 0$).
- In A: $I_1 > 0$ and $I_2 > 0$.
- In B: $I_1 > 0$ and $I_2 < 0$, but the positive net benefit for 1 is greater than the negative net benefit for 2.
- In F: $I_1 < 0$ and $I_2 > 0$, but the positive net benefit for 2 is greater than the negative net benefit for 1.
- The insight is that one individual might decide not to migrate if s/he was alone, but decides to do so if s/he belongs to a family.

The Economics of Migration: General Issues

Why people migrate/who are the migrants?

- Caveat: there are certainly other reasons to migrate that are not strictly captured by Eq. (2).
- For example in the case of refugees that are forced to leave their countries because of a civil war.
- However, from an economic point of view, the difference between what are typically defined “immigrant workers” is not stringent: in both cases the decision to migrate is taken under the expectation that personal (or family) well-being will increase.
- In this sense, any decision to migrate can be explained by a simple cost-benefit analysis, as in Eq. (1).

The Economics of Migration: General Issues

Self-selection

- One question implied by the idea expressed in Eq. (2) is the following: who are the immigrants in high-income countries (e.g. in the US or in Europe)? The natural answer seems to be: those coming from low-income countries (e.g. Mexico or Morocco).
- However, in each country there exists a distribution of incomes, i.e. in each country there are high-income individuals and low-income individuals (let's assume that income comes from wages).
- In this case the question becomes: for example, who are the Mexican immigrants in the US? The low-wage Mexicans or the high-wage Mexicans?

The Economics of Migration: General Issues

Self-selection

- The answer to this question can be given by a model developed by Borjas (which is an extension of the Roy, 1951, model) (see Borjas, 2014, p. 18).
- The Borjas model (in its simplified version) assumes that individuals in a country have different levels of a skill, that we measure by s .
- In each country, an individual with a skill level s can receive a wage for that skill. However, the distribution of compensations for the skill is not the same in all countries.

The Economics of Migration: General Issues

Self-selection

- In some countries it is flat: this means that the wage differential for individuals with a high skill s is low.
- In some countries it is steep: this means that that the wage differential for individuals with a high skill s is high.
- Why do these compensation profiles differ across countries? For example for the fiscal policy: high wages can be heavily taxed and strong subsidies can exist for the lower wages (this can be the case of the Scandinavian countries). In this case the wage distribution is more egalitarian.

The Economics of Migration: General Issues

Self-selection

- In other countries the opposite may occur, and the distribution of wages is more unequal (this is the case of Anglo-Saxon countries).
- Finally, the model assumes that the skill is perfectly transferable i.e. that the industrial structure is pretty much similar across countries and abstracts from the costs of migration.

The Economics of Migration: General Issues

Self-selection

- The graphical representation of the situation just depicted is the following:

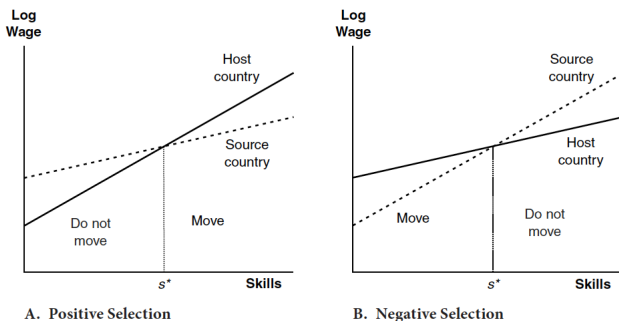


Figure 1.1. The Roy Model, Assuming Incomes Are Perfectly Correlated across Countries

Figure 3: Roy model from Borjas (2014, p. 18)

The Economics of Migration: General Issues

Self-selection

- The left panel represents the situation in which the wage profile in the host (destination) country is steeper than in the country of origin: in this case the individuals with a skill level higher than s^* will emigrate. This is the case of positive selection.
- The right panel represents the situation in which the wage profile in the host (destination) country is flatter than in the country of origin: in this case the individuals with a skill level lower than s^* will emigrate. This is the case of negative selection.
- The left panel, therefore, illustrate the case in which high-skilled individuals emigrate (e.g. from Italy or Sweden to the USA or UK). The right panel, instead, illustrates the case in which the low-skilled individuals emigrate (e.g. from Morocco to Italy or from Mexico to the US).

The Economics of Migration: General Issues

Self-selection

- The intuition is that when the wage distribution is more compressed in the source country, the high-skill individuals are not compensated as they would be in the destination country, when the latter has a more unequal wage distribution.
- Differently, in the case of negative selection, high-skilled workers in a source country where the wage distribution is more unequal do not find convenient to move to a destination country with a flatter wage distribution.

The Economics of Migration: General Issues

Assimilation

- The issue of assimilation refers to the experience of the immigrant in the labor market of the destination country (see Frattini, 2015, pp. 464-67, and Borjas, 2014, Ch. 2)
- The focus is on wage assimilation: i.e. in the process by which the wage of the immigrant worker becomes similar to the wage of the natives.
- Wage assimilation is one instance of the more general process of “economic assimilation”, defined as: “the rate of convergence in economic outcomes between immigrants and natives in the post-migration period.” (Borjas, 2014, p. 38)

The Economics of Migration: General Issues

Assimilation

- This is an instance of economic integration, which may be part of the broader concept of integration of an immigrant into the host country s/he chooses.
- The elements to take into account for an an economic analysis of assimilation/integration, can be summarized by the following equation, representing the (log) wage of an individual i (immigrant or native) at a certain point of time (this is a cross-section analysis: a sample of individuals is observed at a certain point of time and what matters are the differences among them at that point of time)

$$\log w_i = \alpha \text{imm}_i + \beta \text{years}_i + \gamma \text{age}_i + \delta X_i + u_i \quad (4)$$

The Economics of Migration: General Issues

Assimilation

- According to Eq. (4) the wage of an individual i depends on:
 - ① his status of being an immigrant or a native. This is measured by the *dummy variable* imm_i : this variable takes the value of 1 if i is an immigrant, and 0 if s/he is a native. The coefficient α measures the effect on the wage of the status of individual i . If α is negative (positive), other things being equal, the wage of an immigrant is lower (higher) than the wage of a native.
 - ② The number of years spent in the host country (this variable is equal to zero for the native workers). The coefficient β is the crucial parameter: it captures the effect of an additional year of permanence in the host country on the salary of the immigrant, with respect to natives.

The Economics of Migration: General Issues

Assimilation

- 3 The age of individual i . Age captures the effect on the wage of the experience accumulated in the labor market.
- 4 The variable X is a *vector*, i.e. a list, of other observable characteristics (e.g. gender, sector of employment, education, etc.) that can contribute to the explanation of w_i .
- 5 The term u_i is typically added to any regression equation and refers to other effects not captured by the elements specified in the regression equation (and possibly unknown). As such, it is treated as a random variable.

The Economics of Migration: General Issues

Assimilation

- Underlying the Eq. (4) lies a specific idea about returns to human capital. In economics human capital indicates the skills that are acquired by education, on-the-job training and work experience. The key name in the study of human capital is Gary Becker (see Becker, 1964).
- A worker's human capital is remunerated in the labor market and typically receives what economists define a “skill premium”, i.e. the wage that workers with human capital receive is typically higher than the wage of workers with no human capital (alternatively, the premium refers to the extra wage that workers with more human capital receive with respect to workers with less human capital)

The Economics of Migration: General Issues

Assimilation

- Following Borjas (2014, p. 39), the idea underlying Eq. (4) is the following: “even after controlling for educational attainment, the evolution of earnings in a host country’s labor market may differ between comparably aged immigrants and natives, for two reasons: (1) the preexisting human capital of immigrants may be partly specific to the source country; and (2) immigrants may have different incentives to invest in the type of human capital valued by host country employers. As a result, the earnings function should include not only a measure of a person’s total work experience, but also a measure of how long the person has resided in the host country.”

The Economics of Migration: General Issues

Assimilation

- Early empirical analysis on the US showed that α is negative and β is positive.
- A negative value of α means that an immigrant faces an initial penalization in terms of wage with respect to native workers with the same characteristics (age, gender, sector, etc.).
- The explanation resides in the fact that an immigrant labor has an initial market value lower than the natives, for example because their language skills are lower.

The Economics of Migration: General Issues

Assimilation

- A positive value of β means that the wage of the immigrant increases with every year of permanence in the host country.
- The explanation can be that, over time, the immigrant acquires human capital: s/he improves her/his language skills, acquires new competences, etc.
- The magnitude of β measures the speed at which the salary of an immigrant grows with every year of permanence. The faster the rate of growth of immigrants' wage, i.e. the higher the value of the coefficient β , the faster the immigrants close the gap with the natives.

The Economics of Migration: General Issues

Assimilation

- Subsequent works pointed out that one should distinguish between the speed at which the wage of an immigrant increases over time, and the cohort to which s/he belongs.
- In other words, immigrants reaching the host country in different times belongs to different cohorts, which can have different levels of skills. A positive value of β , if one does not control for the cohort of the immigrants, could confuse the two effects.
- For this type of analysis to be carried out, one needs to go beyond the *cross-section* analysis and make a *longitudinal* study: this considers not only the variation across individuals at any point of time, but also the variation across time periods for the same individual(s)

The Economics of Migration: General Issues

Assimilation

- The two relevant effects, therefore, are: i) a cohort effect, captured by the value of coefficient α estimated for different waves of immigration; ii) an aging effect, depending on the years of permanence of the immigrant in the host country.
- In the case of the US, there is evidence that the more recent cohorts of immigrants received an initial wage lower and lower with respect to comparable natives, and they experienced a slower wage growth. (Borjas, 2014, pp. 45-46).

The Economics of Migration: General Issues

Assimilation

- This is taken as evidence of a decreasing skill level of the more recent cohorts of immigrants. They were initially less skilled (i.e. they received a higher penalization), and the skills they accumulated were less and less rewarded on the labour market.
- This aspect can depend on the immigration policy of the host country: i.e. on the fact that, for example, immigration is encouraged/discouraged depending on the skill level of the migrants (Borjas, 2014, p. 47)).
- In addition, more recent cohorts experienced slower rates of assimilation over time: i.e. the wage of immigrants of more recent cohorts grew more slowly than the wage of earlier cohorts, suggesting that their possibility to accumulate skills in the host country might have deteriorated.

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