Economics of Migration

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Master in: "Migrations, Rights, Integration"
Fall 2023
Department of Law
University of Palermo
Lecture 7

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- Migrants' remittances to developing countries represent an important flow of financial resources to those countries, comparable to the flow of foreign direct investments (FDI), official development assistance (ODA) and other foreign portfolio (e.g. financial) investment flows (Yang, 2011, p. 129).

The Economics of Migration: General Issues

Economic Effects in the Source Country: Remittances

Figure 1

Remittances vs. Other International Financial Flows to Developing Countries (1990–2009)
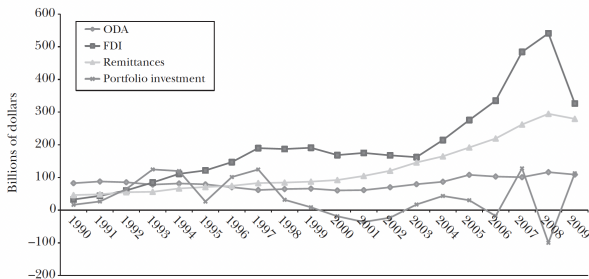
(in billions of constant 2005 U.S. dollars)

Figure: Migrants' remittances and other financial flows to developing countries. Source: Yang (2011)

The Economics of Migration: General Issues
Economic Effects in the Source Country: Remittances

- "Remittances are <u>household income received from abroad, resulting mainly from the international migration of workers</u>. Remittances may be sent as cash or in kind, and may flow through a variety of formal or informal channels." (Yang, 2011, p. 130).
- Formal channels: private agencies (Western Union, MoneyGram, etc.), banks, etc.
- Informal channels: *hawala* in Middle East and South Asia (see, e.g. a report by IMF for details, El Qorchi et al., 2003).
- Remittances' absolute and relative (i.e. with respect to GDP) magnitudes can be very large.

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- Table 1 in Yang (2011) shows that the countries with the largest absolute levels of remittances (in 2010) were India and China, with approximately 50 billions of US \$.

- In relative terms, for small countries like Tajikistan, Moldova or Nepal, the relative magnitude goes from 20% to 35% of GDP.

- "Seven countries are on both 'top- 30' lists, with large absolute remittances that also account for a substantial share of GDP: the Philippines, Bangladesh, Lebanon, Serbia, Guatemala, Jordan, and El Salvador." Yang (2011, p. 133)

- Remittances are large not only from the perspective of the source country, but they also represent an important share of the income of the migrant worker.

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- Table 2 in Yang (2011) shows that, for example, the share of earning devoted to remittances of migrants from Ghana working in Italy or migrants from Morocco living in Spain are respectively 23% and 30% of their earnings.
- The first two relevant questions that can be formulated are: i) why do migrants send remittances? ii) what is their effect in the source country?
- The decision to send remittances can be altruistic, i.e. to increase consumption by the recipients, to allow investments (e.g. in education), or to provide insurance to the recipients.
- Remittances can also depend on private interests of the migrant workers, for example to repay a debt, e.g. generated to pay the cost of migration.

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Economic Effects in the Source Country: Remittances

- What is the effect of the remittances in source country?
- Remittances, in principle, can positively affect economic growth because: i) they can increase investment (in physical or human capital); ii) they can increase productivity (for example if they are invested in hi-tech sectors).
- On the other hand, this is not necessarily the case if remittances are mostly utilized for consumption, instead of investment.
- A first approach considers the aggregate effect of remittances on economic growth
- In this case what is observed is a country or, more likely, a sample of countries (in what is called a cross-country analysis).

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- Studies in this respect are quite inconclusive, in the sense that they often found no statistically significant effects.
- A possible explanation, however, is that these types of analysis suffer a problem of endogeneity.
- That is, in considering the relationship between growth and remittances, it is difficult to sustain that remittances are exogenous.
- There might be two types of problems: i) reverse causality: it is growth in the source country that stimulates remittances (for example: low growth promotes migration from the country, which subsequently generates the remittances).

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- ii) <u>Omitted variable problem</u>: there is a third factor that explains both growth and remittances. For example: "poor domestic governance ... both motivates higher migration (leading to higher remittances), and retards economic growth." (Barajas et al., 2009, p. 9)

- An <u>interesting result</u>, mentioned by Barajas et al. (2009, p. 12), is that it seems that <u>remittances can have a positive effect on growth in countries with a small financial sector</u>, suggesting that <u>remittances can relax credit constraints</u> (i.e. the difficulty of borrowing money for investments) in these countries.

- Studies based on <u>micro-data</u> (i.e. data on individuals), find that <u>remittances are often used to finance consumption instead of investment</u> (Yang, 2011, p. 137).

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- A problem with these studies, however, is that <u>remittances are not randomly allocated</u> among recipient families. It can be the case that, for example, family members with entrepreneurial attitude "send" relatives abroad and are able to usefully utilize their remittances.

- Some studies (see Yang, 2011, p. 139) exploited a <u>natural experiment</u> to avoid the issue of non-random allocation of remittances to households in source countries.

- They analyzed the case of migrants from Philippines after the financial crisis of 2007.

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- Migrants from the Philippines live in many foreign countries. The financial crisis strongly affected exchange rates, basically affecting the value of the remittances of Filipinos living abroad.

- So, for some of the recipient households, this represented an exogenous variation of the remittances (denominated in foreign currencies, and that were differently affected by the exchange rate shocks).

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- These studies find that remittances positively increased investments in households in source countries, in particular in education.
- Other studies found that remittances can act as an insurance for the households in recipient countries.
- In particular, they found that remittances increase when income in the recipient country falls (for example for an economic crisis), and fall when income raises.

Reading the data on immigration
Introduction

- Data can be of two types: i) macro-data: they report aggregate values of the variables for States; ii) micro-data: they refer to individual units, such as individuals, firms, regions, cities, etc.
- Data can be cross-section, i.e. they refer to a "snapshot" of a sample of, e.g., countries at a point of time (which can also be a period of time: e.g. the average value of immigrants in European countries in the period 2000-2020).
- Data can also consider the time dimension. In this case they can have a panel structure (i.e. the immigrant shares in European countries for each year between 2000 and 2020).
- In the case of micro-data, these datasets are denoted as longitudinal. For example they contain data on individuals over time about their wage, marital status, type of job, etc.

Reading the data on immigration
Introduction

- Sometimes datasets are freely available (and can be downloaded), sometimes they require payments or subscription.
- Data are usually downloadable in Excel format, in CSV (Comma Separated Values), or in format readable by statistical software such as *Stata* (.dat) or *R*.
- For example the CSV format is typically readable by statistical software such as R (`https://www.r-project.org/`)

Reading the data on immigration
Introduction

- As an initial step when analyzing data it is useful:
- i) to make a table with <u>summary statistics</u> on the data of interest, such as means and variances (or standard deviations);
- ii) to make a <u>scatterplot</u> of the relationship between two variables, to observe if any tendency is visible (i.e a positive or a negative relationship).

Reading the data on immigration
Introduction

- Given N observations, $X_1, X_2, ...X_N$ <u>the mean</u> of the observations is given by:

$$\mu = \frac{\sum_{i=1}^{N} X_i}{N} \tag{1}$$

- The mean is a representative value of a measure: e.g. the mean income of a group of individuals, the mean age, weight, etc.

- The <u>variance</u> is a measure of the <u>dispersion</u> of the data, and is given by:

$$\sigma^2 = \frac{\sum_{i=1}^{N} (X_i - \mu)^2}{N} \tag{2}$$

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Introduction

- The other common measure of the dispersion of the data is the standard deviation, which is simply the square root of σ^2 and is denoted by σ (so, $\sigma = \sqrt{\sigma^2}$).

- These basic operations (computing mean and variances), can be done by many softwares, from spreadsheet software (Excel, LibreOffice, ecc) to statistical software such as R, Stata, SPSS, ecc.

- The same for the representation of relationship between variables through scatterplots.

Reading the data on immigration

Main sources of data on migration: general data

- Migration Data Portal (`https://migrationdataportal.org`). It is managed by IOM (International Organization for Migration), a body of UN. It contains macro data on various dimensions of migration (migration flows, refugees, etc). Some datasets can be downloaded.
- They are listed at: `https://migrationdataportal.org/themes/iom-data-overview`
- A useful overview of the data sources (e.g. administrative sources, social media, etc.) is at: `https://migrationdataportal.org/themes/migration-data-sources`.
- Further useful information can be found at the IOM's Global Migration Data Analysis Centre: `https://gmdac.iom.int/`

Reading the data on immigration

Main sources of data on migration: general data

- The United Nations Global migration database (UNGMD) (https://www.un.org/development/desa/pd/data/global-migration-database)
- UNGMD is a comprehensive collection of empirical macro data on the number of international migrants by country of birth and citizenship, sex and age as enumerated by population censuses, population registers, nationally representative surveys and other official statistical sources from more than 200 countries and territories in the world.

Reading the data on immigration

Main sources of data on migration: general data

- The World Bank Global Bilateral Migration Database (`https://datacatalog.worldbank.org/dataset/global-bilateral-migration-database`)
- Here it is possible to download macro data on country-to-country migration flows for selected years (and access other World Bank databases, such as the World Development Indicators) See the description in Parsons et al. (2007).
- International Labor Organization (ILO) ILO produces many datasets on workers and working conditions (e.g. labor forces, wages, etc.). See: `https://ilostat.ilo.org/`.
- In particular ILO has data on migration (`https://ilostat.ilo.org/\topics/labour-migration/`) and publishes the "ILO Global Estimates on International Migrant Workers".

Reading the data on immigration

Main sources of data on migration: general data

- OECD. OECD has a specific section on immigration data (macro): International migration database: `https://stats.oecd.org/Index.aspx?DataSetCode=MIG`

- Eurostat. Eurostat focuses on EU countries, and provides "Migration and migrant population statistics".

- Department of Homeland Security. Focuses on the US, provides a report ("Yearbook of Immigration Statistics") and a great deal of information. See: `https://www.dhs.gov/immigration-statistics/yearbook`

- ISTAT. Data on Italy, can be downloaded here: `http://stra-dati.istat.it/`

Reading the data on immigration

Main sources of data on migration: specific data

- Mexican Migration Project Focuses on Mexican Migration to the US. See: `https://mmp.opr.princeton.edu/`
- Colegio de la Frontera Norte. Focus on Mexican borders. See: `https://www.colef.mx/english/`
- Mixed Migration Centre (MMC). Focus on migration, refugees, trafficking, etc.
  See: `http://www.mixedmigration.org/mmr/`

Reading the data on immigration

Main sources of data on migration: specific data

- Counter Trafficking Data Collaborative. Contains the "Global Data Hub on Human Trafficking"
  `https://www.ctdatacollaborative.org/`
- Irregular Migration Research Database: Europe. See:
  `https://irregular-migration.net//`
- Missing Migrants Project. Implemented by IOM, focuses on deaths across the immigration routes:
  `https://missingmigrants.iom.int/`

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