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Factors affecting migratory flows to Spain and other advanced economies

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Rationale

This article examines the main factors underlying migratory flows to Spain and other advanced economies in recent times.

Takeaways

- Migratory flows are shaped by factors linked to the origin countries (push factors), but also by factors specific to the destination countries (pull factors). This is particularly the case in Spain, where the latter have historically been highly significant. They have also become increasingly important in recent years for explaining migrant flows to Spain and other advanced economies.
- Among the specific factors in destination countries that can drive the arrival of migrants are: (i) a reduction in the unemployment rate, (ii) higher average wages and (iii) changes in migration policies that make it easier for migrants and their families to obtain stable residence status.
- The economic and social conditions of the countries of origin also significantly influence migratory flows, as shown by the "push" effect generated by political instability, conflicts, natural disasters and food crises, alongside low GDP per capita.

Keywords

Immigration, foreigners, push factors, pull factors, migration policy, food crises.

JEL classification

J6, J11, J21, J24, E24.

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FACTORS AFFECTING MIGRATORY FLOWS TO SPAIN AND OTHER ADVANCED ECONOMIES

Introduction

The number of people living outside their country of origin has been steadily increasing since the 1990s (Chart 1.a), which means that this group already constituted 3.6% of the world's population by 2020 according to data on foreign residents published by the United Nations every five years. In recent decades, international migrants from Asia and the Americas, namely Latin America and the Caribbean, increased most, with the majority heading to Europe, North America, Australia and New Zealand.

Advanced economies are thus the main destination for international migration. This trend has been consolidating with increasing inflows over the past decades (Chart 1.b). Its acceleration in recent years was only temporarily interrupted by the onset of the global financial crisis and the COVID-19 pandemic. In the European Union (EU), Spain has one of the highest rates of migrant inflows per thousand inhabitants (Chart 1.c).[1] Indeed, in 2023, it had the highest relative inflow of any EU country, excluding only small countries such as Malta, Cyprus and Luxembourg.

However, immigrants' origin tends to vary depending on the destination country. Migrants from Latin America and the Caribbean primarily settle in the United States, other Latin American countries and Spain, which has become a key destination since 2005 compared with other traditional destinations like Canada. In contrast, Asian migrants are distributed across various geographical regions, notably south-west Asia (especially the Arabian Peninsula), which accounts for a substantial portion of the increase in migrants from Asia in 2000-20, as well as the rest of Asia, Europe and the United States.

This article examines some of the factors underlying the recently observed trends in migration and, in particular, those factors that may help to explain migratory flows to the EU, Spain and other advanced economies. To this end, the next section analyses how much of the increase in migratory flows is due to idiosyncratic circumstances in the countries of origin and how much relates to changes in the conditions of the destination countries. The third section then identifies several specific factors that have influenced recent changes in migratory flows to advanced economies.

The relevance to migratory flows of idiosyncratic circumstances in origin and destination countries

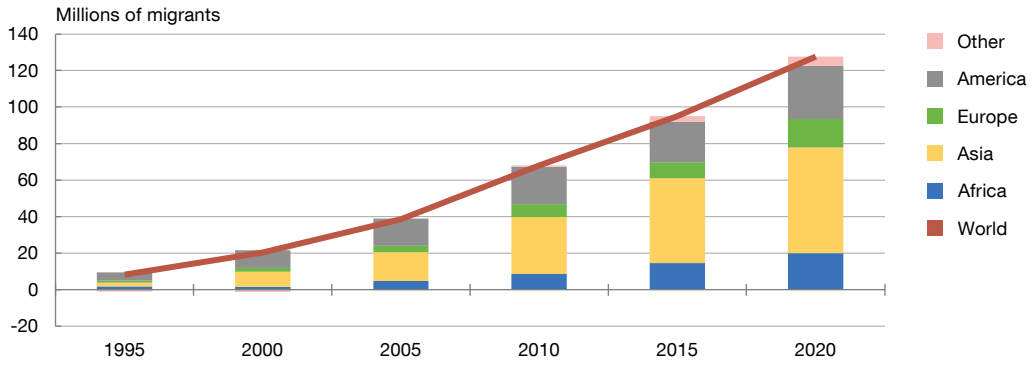
To understand the magnitude and distribution of international migratory flows, it is essential to first consider structural aspects of a geographical, social and cultural nature that characterise the

1 Looking beyond the scale of these flows, immigrants arriving in Spain in recent years are older and have a higher education level than those who arrived in previous waves (Cuadrado, Gómez and Sastre, 2024).

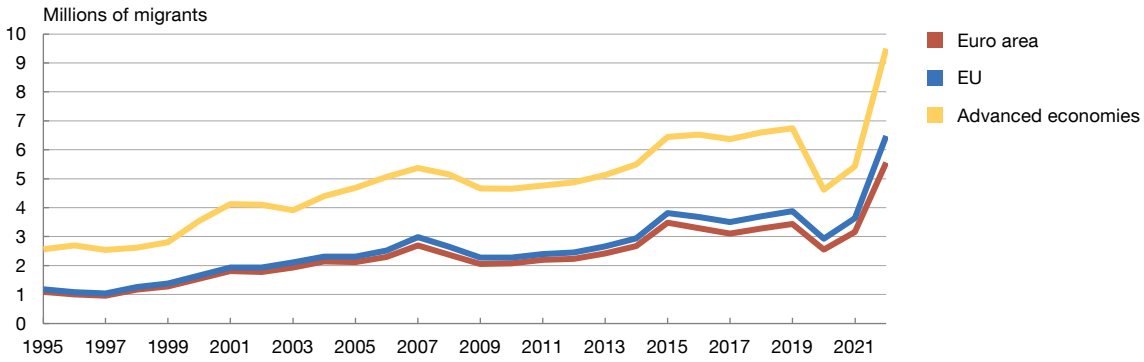
Chart 1

Growing relevance of migratory flows

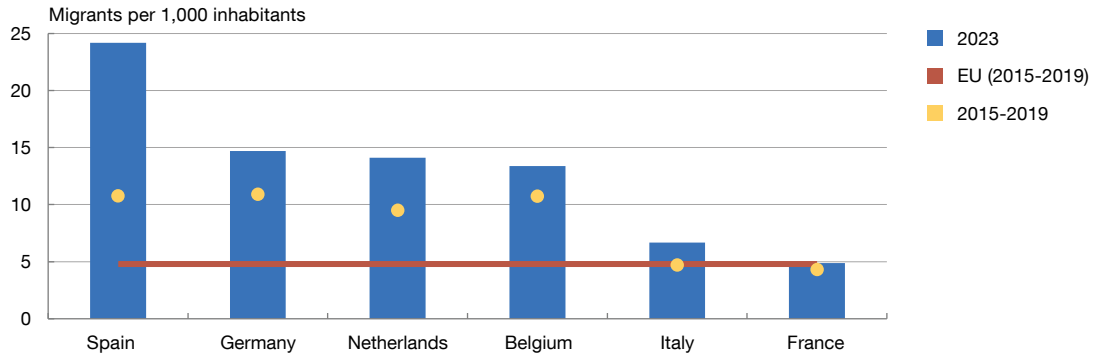
1.a Increase in the international migrant stock by country of origin relative to 1990



1.b Migrant inflows in different regions



1.c Rate of foreign migrant inflows per 1,000 inhabitants (a)



SOURCES: United Nations, Eurostat, OECD and Banco de España.

a Data of Eurostat, which follows harmonised criteria for EU Member States and defines international migrants as individuals who establish their usual residence in a Member State for a period that is, or is expected to be, at least 12 months, after having been resident in another Member State or a third country. As a result, changes of residence expected to last less than 12 months are not included. The definition of a foreign migrant includes the country of birth criterion.

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bilateral relationship between the various origin and destination countries. In this regard, the geographical and cultural proximity of a shared language or religion, historical ties from a colonial past and the existence of a free trade agreement between countries are all factors that can foster migratory flows by lowering the cost of migrating.[2] For example, Spain is the main destination in Europe for Latin American migrants since they share its language and culture. Similarly, migrants arriving in Europe from India prefer to go to the United Kingdom, home to its former colonial metropolis.

Beyond these structural aspects, changes in and the geographical distribution of migratory flows at any given time are also determined by various economic, demographic, social and environmental factors that characterise the current situation of the potential countries of origin and destination involved. Here, the economic literature usually distinguishes between aspects related to the migrants' countries of origin (push factors) and those related to the relative attractiveness of a particular country as a migration destination (pull factors).[3] Economic conditions (such as GDP per capita and the state of the labour market), demographic factors (such as the proportion of young people in the population), and circumstances that typify crisis situations (whether political, social, food-related, environmental or military) can all be seen as push factors.[4] In terms of pull factors, the empirical literature generally includes economic drivers (such as GDP per capita, wage growth and cyclical conditions),[5] regulatory conditions (for example, ease of entry, permanent residence or access to nationality), and social factors (including the existence of compatriot support networks, access to social benefits and integration policies).

In an initial approach to identify what portion of the bilateral migrant flows is attributable to specific aspects of the country of origin (that do not depend on the destination country) and how much is driven by factors inherent to the destination country (regardless of the origin country), the methodology proposed by Amiti-Weinstein (2013, 2018)[6,7] has been adapted for migratory flows. Specifically, the empirical model used to identify the specific factors of origin and destination countries is the following:

$$g_{od,t} = O_{o,t} + D_{d,t} + \varepsilon_{od,t}$$

where $O_{o,t}$ represents the factors driving emigration from country o (independent of the destination country) and $D_{d,t}$ represents the factors making country d attractive to migrants from any origin and $g_{od,t}$ denotes the rate of change in the cumulative flow of migrants from country o to country d during period t. By aggregating for all the inflows and outflows of a country, it is possible to

2 Figuereido, Lima and Orefice (2016) and Orefice (2015).

3 Mayda (2010), Beine, Bertoli and Fernández-Huertas Moraga (2016) and Ortega and Peri (2013).

4 Carril-Caccia, Paniagua and Suárez-Varela (2022), Mckenzie and Rapoport (2010), Beine and Jeusette (2021) and Beltran and Hadzi-Vaskov (2023).

5 Mayda (2010), Izquierdo, Jimeno and Lacuesta (2015) and Beine, Bourgeon and Bricongne (2019).

6 These authors break down the growth of bank lending to firms into the part relating to firm-borrowing demand shocks and the part relating to bank loan supply shocks.

7 Beltran and Hadzi-Vaskov (2023) apply this decomposition method to migrant stocks for the first time, as do Di Stefano and Rossi Espagnet (2025). Both analyses use data on the stock of migrants residing in each country, available every five years. This article, however, breaks down annual bilateral migrant flows.

obtain a breakdown that separates one specific (pull or push) component for that country from the average of the various origins of migrants (for inflows) or of the average of the destination countries to which they are headed (for outflows).[8]

The data used in the analysis are the annual bilateral migratory flows sourced from the database on international migration of the Organisation for Economic Co-operation and Development (OECD).[9] Unlike the United Nations (UN) database, which is widely used in other migration analyses and provides information on the stock of migrants residing in each country, the OECD database offers information on gross flows, which are more closely related to migration decisions than stocks are. Furthermore, the UN data are available every five years and are suitable for capturing long-term trends, whereas the OECD data are annual, providing more up-to-date information on changes in migration and an analysis of short and medium-term socio-economic factors.

Chart 2 shows the results of this breakdown into push and pull factors for migrant inflows to Spain and the EU, as well as for outflows from South American countries. It can be seen that the push component has generally been more significant throughout the period analysed for inflows into Spain and the EU (except for Spain in the years preceding the financial crisis). That is, migratory flows appear to be determined largely by factors exogenous to the destination countries. However, in more recent years, pull components linked to idiosyncratic drivers have become increasingly significant in explaining migratory flows. For both Spain and EU countries as a whole, the pull component has grown in importance since the 2010s, reflecting some positive correlation with the cyclical position of these economies. This trend is also evident, for instance, in migrant outflows from South America, where the attractiveness of countries of destination has become more significant in recent years, while the relative importance of push factors has dropped slightly.

Specific factors affecting migrant inflows into Spain and other advanced economies

To analyse the specific aspects of both origin and destination countries that affect inflows into advanced economies, panel regressions are specified with push and pull components estimated on the basis of the Amiti-Weinstein decomposition.[10]

In the first step, the estimated pull component for migrant flows to advanced economies during the period 2000-19[11] is regressed on a set of variables indicative of the cyclical position of the

8 When aggregating country-level data disaggregated at the bilateral origin-destination level, a series of statistical assumptions and "additivity restrictions" are imposed, whereby a destination country cannot receive more migrants without at least one origin country increasing its migratory flow and vice versa. See Amiti-Weinstein (2013, 2018) for further details.

9 This database includes information from 34 countries receiving migrants, mainly advanced economies, and about 200 countries of origin. The data are not harmonised and reflect each country's criteria for their population and migration statistics (OECD, 2024). When the Amiti Weinstein decomposition was used, the available time period ended in 2021.

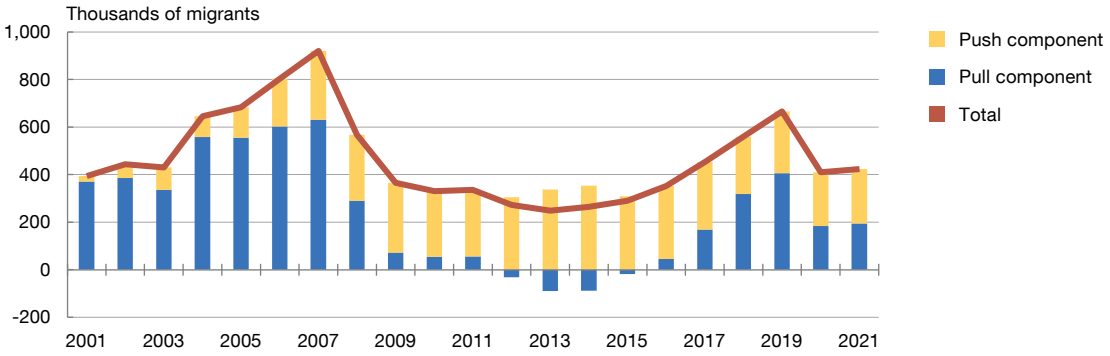
10 The regressions include fixed country and time effects. The explanatory variables are lagged.

11 Although bilateral migratory flow data are available up to 2021, this part of the analysis only covers up to 2019 owing to the lack of available data on migration policies for subsequent years.

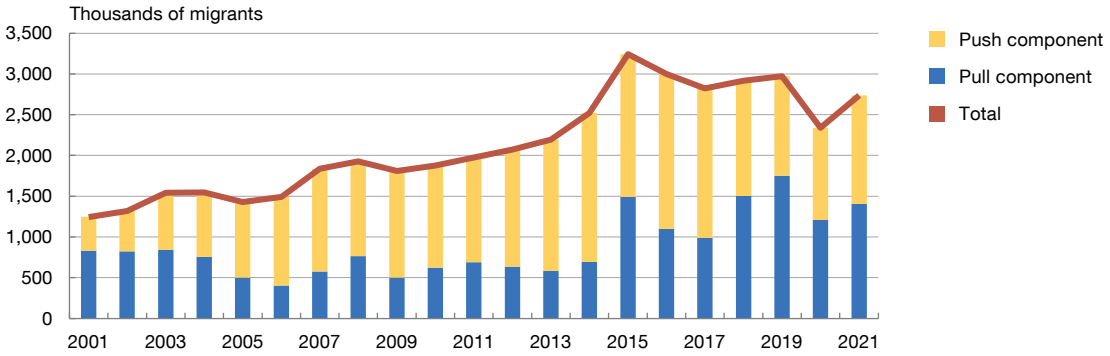
Chart 2

Breakdown of migratory flows into pull and push components (a)

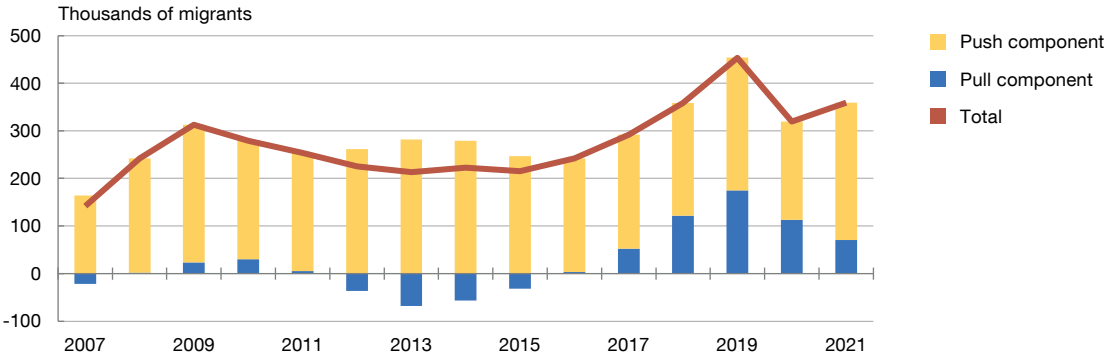
2.a Inflows to Spain



2.b Inflows to the EU, excluding Spain



2.c Outflows from South America



SOURCES: OECD, Banca d'Italia and Banco de España.

a Amiti and Weinstein (2013 and 2018).

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destination countries (such as the unemployment rate) and the degree of flexibility of migration policies in those countries.[12] Variables approximating the labour income that immigrants can aspire to in the destination countries are also included.[13,14]

According to the results of this exercise (Chart 3.a), fluctuations in the pull component are explained by, among other factors, changes in the unemployment rate (an increase in the unemployment rate reduces the inflow of immigrants), average wage growth in the destination country (higher wage growth increases the immigrant inflows) and the flexibility of migration policies (greater ease, as indicated by the Migrant Integration Policy Index (MIPEX) indicators, in acquiring stable residence status for immigrants and their families in the destination country lifts inflows).

Although push factors have remained quite stable, as shown in Chart 2, these factors are quantitatively more significant in explaining immigrant inflows to the EU and Spain, although it should be noted that this was not so in Spain prior to the global financial crisis. Therefore, in a second step, the previously estimated push components in the outflows are regressed on a set of variables that attempt to characterise the social and economic conditions in the countries of origin that might drive the decision to migrate. Specifically, we introduce, as explanatory variables, an indicator of political stability and absence of violence/terrorism compiled by the World Bank,[15] an indicator measuring the economic damage caused by all natural disasters occurring in a given year, an indicator approximating the existence of food crises (with three degrees: mild, moderate, and severe),[16] and GDP per capita.

Additionally, a regression on the total outflows explores the role of certain bilateral factors that, according to the academic literature, would reduce the cost of migration and thus facilitate the migration process.[17] In particular, it considers the geographical distance between origin and destination, whether the origin and destination countries share a border or language, whether there are colonial ties between them and if they have signed any trade agreements.[18]

The estimates made (Chart 3.b) indicate that greater political stability and the absence of violence/terrorism in the countries of origin, as well as an increase in GDP per capita, reduce migration

12 The migration policy indicator used in this article aggregates three of the eight areas included in the Migrant Integration Policy Index database (MIPEX): ease of access to nationality and permanent residence and family reunion. The other five areas are: anti-discrimination policies, integration into the education system, integration into the health system, labour market mobility, and political participation. This database is a joint project of the Barcelona Centre for International Affairs and the Migration Policy Group (Migration Policy Group, 2020).

13 Wage growth is obtained from wage data at 2015 price levels, expressed in US dollars and adjusted for purchasing power parity, sourced from the OECD database.

14 Other studies that have examined the determinants of migration from a short-term perspective include McKenzie, Theoharides and Yang (2014), Bertoli, Brücker and Fernández-Huertas Moraga (2016) and Beine, Bourgeon and Bricongne (2019).

15 World Development Indicators.

16 The food crises indicators account for three degrees of severity: temporary shortfall in production or overall food supply deficit (milder), severe but localised food insecurity and widespread lack of access to food (more severe). These indicators are sourced from the database in Carril-Caccia, Paniagua, and Suárez-Varela (2022), which uses the quarterly reports of the Global Information and Early Warning System of the Food and Agriculture Organization.

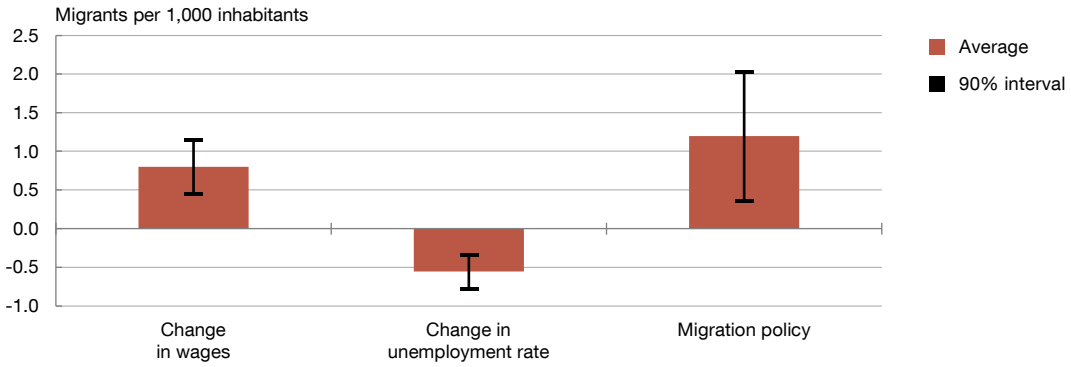
17 Bilateral variables are not relevant for explaining the push component, which reflects factors specific to the country of origin, but they are relevant for explaining total outflows.

18 Information on geographical distance, whether countries share a border, a common language or colonial ties is obtained from the CEPII database (Mayer and Zignano, 2011, and Conte, Cotterlaz and Mayer, 2023).

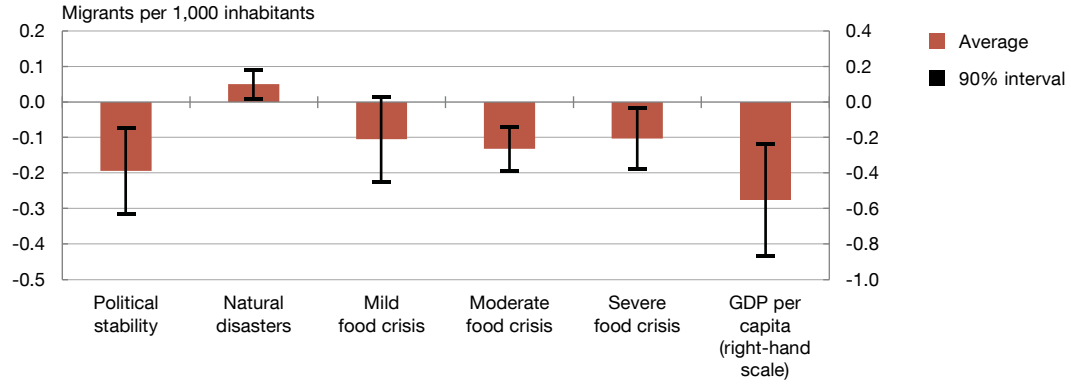
Chart 3

Impact of pull factors on inflows and push factors on outflows (a) (b)

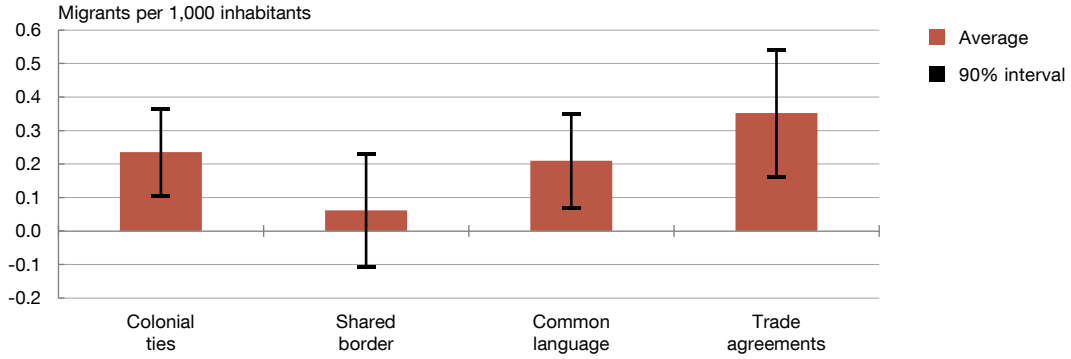
3.a Impact of pull variables on the pull component of inflows (c)



3.b Impact of the push variables on the push component of outflows (d)



3.c Impact of bilateral characterists on the outflow rate (e)



SOURCES: OECD, Banca d'Italia and Banco de España.

a Estimates based on regressions with fixed country and time effects for the pull component of inflows, the push component of outflows and the total outflow. The charts illustrate the impact of a variation equal to one standard deviation of the lagged explanatory variables.
b Information includes entries into 34 migrant-receiving countries, primarily advanced economies, and departures from approximately 200 countries, which are the source of migration to OECD countries. The OECD data on migratory flows are not harmonised and, therefore, reflect each country's criteria for their population and migration statistics (OECD, 2024).
c The unemployment rate and wage growth data are sourced from the OECD and the migration policy indicator is compiled by aggregating components related to access to residency and nationality and the possibility of family reunion from the MIPEX database.
d "Political stability" refers to the "Political Stability and Absence of Violence/Terrorism" indicator from the Worldwide Governance Indicators database of the World Bank. The effect of food crises has been sourced from Carril-Caccia, Paniagua and Suárez-Varela (2022). Information on the occurrence of natural disasters is sourced from EM-DAT.
e Bilateral variables are obtained from the CEPII database and are introduced into the regression as the average weighted by the share of flows to each destination.

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outflows. Conversely, factors such as the occurrence of natural disasters are associated with an increase in migrant outflows towards OECD countries. Furthermore, in line with the recent literature, it is observed that mild food crises do not significantly affect migrant outflows. However, as the severity of the crisis increases, the effect may become negative. This is due to liquidity constraints: as food crises worsen, migrants allocate a greater portion of their resources to meeting basic food needs, which limits their ability to migrate.[19]

In addition, in the estimation performed to explain the total outflow ratio (Chart 3.c), variables characterising the bilateral relationship between the origin and destination countries prove significant. These variables are included in the regression as an average of the destinations to which migrants from each country go.[20] This shows that the existence of previous colonial ties, a common language and trade agreements promote outflows.

REFERENCES

Amiti, Mary and David E. Weinstein. (2013). "How Much do Idiosyncratic Bank Shocks Affect Investment? Evidence from Matched Bank-Firm Loan Data". NBER Working Paper Series, 18890, National Bureau of Economic Research. https://doi.org/10.3386/w18890

Amiti, Mary and David E. Weinstein. (2018). "How Much Do Idiosyncratic Bank Shocks Affect Investment? Evidence From Matched Bank-Firm Loan Data". *Journal of Political Economy,* 126(2), pp. 525-587. https://doi.org/10.1086/696272

Beine, Michel, Simone Bertoli and Jesús Fernández-Huertas Moraga. (2016). "A Practitioner's Guide to Gravity Models for International Migration". *The World Economy,* 39(4), pp. 496-512. https://doi.org/10.1111/twec.12265

Beine, Michel, Pauline Bourgeon and Jean-Charles Bricongne. (2019). "Aggregate Fluctuations and International Migration". *The Scandinavian Journal of Economics,* 121(1), pp. 117-152. https://doi.org/10.1111/sjoe.12258

Beine, Michel and Lionel Jeusette. (2021). "A meta-analysis of the literature on climate change and migration". *Journal of Demographic Economics,* 87(3), pp. 293-344. https://doi.org/10.1017/dem.2019.22

Beltran, Paula and Metodij Hadzi-Vaskov. (2023). "Climate and Cross-Border Migration". IMF Working Papers, WP/23/250, International Monetary Fund. https://doi.org/10.5089/9798400261879.001

Bertoli, Simone, Herbert Brücker and Jesús Fernández-Huertas Moraga. (2016). "The European crisis and migration to Germany". *Regional Science and Urban Economics,* 60, pp. 61-72. https://doi.org/10.1016/j.regsciurbeco.2016.06.012

Carril-Caccia, Federico, Jordi Paniagua and Marta Suárez-Varela. (2022). "Forced Migration and Food Crises". Documentos de Trabajo, 2227, Banco de España. https://doi.org/10.2139/ssrn.4191004

Conte, Maddalena, Pierre Cotterlaz and Thierry Mayer. (2022). "The CEPII Gravity Database". CEPII Working Papers, 2022-05, Centre d'Études Prospectives et d'Informations Internationales. https://www.cepii.fr/CEPII/en/publications/wp/abstract. asp?NoDoc=13432

Cuadrado, Pilar, Ángel Luis Gómez and Teresa Sastre. (2024). "Comparing the characteristics of migratory flows to Spain and other European Union countries". *Economic Bulletin - Banco de España,* 3/2024, Analytical Articles. https://doi.org/10.53479/37432

Di Stefano, Enrica and Elena Rossi Espagnet. (2025). "Driven to leave: Analysing the factors behind the emigration in Africa". Forthcoming.

Figueiredo, Erik, Luis Renato Lima and Gianluca Orefice. (2016). "Migration and Regional Trade Agreements: A (New) Gravity Estimation". *Review of International Economics,* 24(1), pp. 99-125. https://doi.org/10.1111/roie.12209

19 Suárez-Varela (2022) and Carril-Caccia, Paniagua, and Suárez-Varela (2022).

20 These averages are weighted by the bilateral flow of migrants.

International Organisation for Migration (IOM). (2024). *World Migration Report 2024.* https://publications.iom.int/books/world-migration-report-2024

Izquierdo, Mario, Juan F. Jimeno and Aitor Lacuesta. (2016). "Spain: From massive immigration to vast emigration?". *IZA Journal of Migration,* 5(10). https://doi.org/10.1186/s40176-016-0058-y

Mayda, Anna Maria. (2010). "International migration: a panel data analysis of the determinants of bilateral flows". *Journal of Population Economics,* 23, pp. 1249-1274. https://doi.org/10.1007/s00148-009-0251-x

Mayer, Thierry and Soledad Zignago. (2011). "Notes on CEPII's Distances Measures: The GeoDist Database". CEPII Working Papers, 2011-25, Centre d'Études Prospectives et d'Informations Internationales. https://doi.org/10.2139/ssrn.1994531

Mckenzie, David and Hillel Rapoport. (2010). "Self-selection patterns in Mexico-U.S. migration: The role of migration networks". *The Review of Economics and Statistics,* 92(4), pp. 811-821. https://doi.org/10.1162/REST_a_00032

McKenzie, David, Caroline Theoharides and Dean Yang. (2014). "Distortions in the International Migrant Labor Market: Evidence from Filipino Migration and Wage Responses to Destination Country Economic Shocks". *American Economic Journal: Applied Economics,* 6(2), pp. 49-75. https://doi.org/10.1257/app.6.2.49

Migration Policy Group. (2020). "Migrant Integration Policy Index". https://www.mipex.eu/

United Nations. Department of Economic and Social Affairs, Population Division. (2020). "International Migrant Stock 2020". https://www.un.org/development/desa/pd/content/international-migrant-stock

Orefice, Gianluca. (2015). "International migration and trade agreements: The new role of PTAs". *Canadian Journal of Economics/ Revue Canadienne d'Économie,* 48(1), pp. 310-334. https://doi.org/10.1111/caje.12122

Organisation for Economic Co-operation and Development. (OECD). (2024). "Statistical annex". In OECD, *International Migration Outlook 2024.* https://doi.org/10.1787/50b0353e-en

Ortega, Francesc and Giovanni Peri. (2013). "The effect of income and immigration policies on international migration". *Migration Studies,* 1(1), pp. 47-74. https://doi.org/10.1093/migration/mns004

Suárez-Varela, Marta. (2022). "The effect of food crises on international migration". *Economic Bulletin - Banco de España,* 3/2022, Analytical Articles. https://www.bde.es/wbe/en/publicaciones/publicaciones-discontinuadas/articulos-analiticos/mercado-de-trabajo/efecto-crisis-alimentarias-sobre-migraciones-internacionales.html

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