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ABSTRACT

The Second Spanish Immigration Boom*

International migrants choose their country of residence to maximize their utility. As a result, their choices are informative about the relative attractiveness of countries. This paper explains why Spain became the fourth most attractive country in the world for international migrants in the period 2015-2024, what I define as the Second Spanish Immigration Boom of the century. First, an accounting decomposition shows how, contrary to other destinations, Spanish-specific factors, correlated with economic conditions and general migration policies, have a larger weight in explaining immigration to Spain than origin-specific factors. Second, the causal relevance of bilateral visa policies is also shown, particularly in the context of Latin American immigrants, by using origins that are required a visa to enter Spain as a control for visa-free access countries in a generalized differences-in-differences setting. Finally, the effects of the Boom on immigrant selection are also analyzed, finding that the Second Boom was different from the first because educational selection improved.

JEL Classification: F22, J11, J61, O15
Keywords: international migration, gravity model, selection

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1 Introduction

Country of birth can be considered as the most relevant characteristic that determines an individual's position in the world income distribution, explaining about two thirds of her income (Milanovic, 2015). Consequently, many individuals try to improve upon their income and their standard of living by changing their country of residence, moving away from their countries of birth. These are international migrants, and they have accounted for a substantial share of population growth, particularly in rich countries, over the last years. For example, Fernández-Huertas Moraga and López Molina (2024) calculated that 58 per cent of rich countries' population growth between 1990 and 2020 was due to international migration. In the case of Spain, Fernández-Huertas Moraga (2021) calculated this number at 79 per cent for the 2000-2020 period. As a result, it is interesting to study how individuals decide to cross borders and choose some destinations over others. They certainly have an effect on the population composition of the receiving societies.

Spain is an interesting case study because of its changing attractiveness with respect to international immigrants. It went through an immigration boom that started at the end of the XX$^{\text{th}}$ century, becoming the second most preferred destination in the world for international migrants between 1990 and 2010, following the much larger United States. Spain ranked between the 7$^{\text{th}}$ and 12$^{\text{th}}$ largest economies in the world in this period while the United States was the first.[1] Between 2010 and 2015, as the second wave of the 2008 Great Recession reached Southern Europe and Spain in particular, only Russia, Syria and Pakistan lost more international migrants than Spain (388,000). Between 2020 and 2024, Spain became the third most preferred destination in the world, only behind the United States and Germany.[2]

In addition to this international comparison, international migration flows to Spain increased the Spanish population by almost 3 million people between 2015 and 2024, close to the level of 1995-2005 inflows and only clearly behind the 4.3 million people who entered the country in net terms between 2000 and 2010.[3] This happened despite the parentheses in

[1] Own calculations on total GDP in current dollars (Azevedo, 2011). In PPP terms, Spain ranked between the 13$^{\text{th}}$ and 16$^{\text{th}}$.

[2] Spain was fourth behind the United States, Germany and Turkey if we focus in the 2015-2024 period. Own calculations on data from United Nations Department of Economic and Social Affairs, Population Division (2024).

[3] Own calculations on data from United Nations Department of Economic and Social Affairs, Population

international migration to Spain that took place during the Covid period (2020-2021). After that, arrivals to Spain are comparable to those of the first immigration boom, justifying the title: the Second Spanish Immigration Boom.

This paper studies the reasons behind this Second Spanish Immigration Boom. For the first, Bertoli and Fernández-Huertas Moraga (2013) and Cebolla Boado et al. (2013) argued that the combination of the economic crisis in Latin America and the closure of the United States to Latin American migrants together with the lax bilateral visa policies of Spain towards these and other origins were responsible for most immigration flows to Spain. In this paper, I show that Spanish policies and economic conditions also had a role, both in that boom and in the second. I first run standard gravity models on origin-destination-time immigration arrivals to OECD countries and show that, contrary to other OECD destinations, the role of destination factors is large in explaining immigration flows to Spain. These destination factors correlated more strongly both with economic conditions and immigration policies in Spain than in other OECD countries, despite the fact that these policies were generally comparable.

Second, I show that bilateral immigration policies still played a role in immigration flows to Spain during this second boom. In particular, I identify visa policies towards Peru and Colombia and asylum provisions towards Ukraine, empirically not distinguishable from the direct effects of the Russian invasion, as bilateral elements that account for a substantial share of immigration to Spain in the period.

Lastly, I document that none of these policies had significant effects on the selection of immigrants into Spain. While there was a classic quantity-quality trade-off in the First Boom, with high inflows accompanied by less selected flows, the Second Boom was characterized by both increasing inflows and increased selectivity in terms of education. This difference can be attributed to the changing composition of immigration inflows to Spain by country of origin, with Latin American inflows being more relevant in the Second Boom than in the First.

In terms of methodology, the results on the comparison of immigration to Spain with immigration to other countries hinge on gravity models saturated with fixed effects, as in Bertoli et al. (2022). In parallel work, Sastre et al. (2025) reached similar conclusions through a decomposition following Amiti and Weinstein (2018).[4] For the study of bilateral migration

Division (2024).

[4]This decomposition was first applied to migration flows by Beltrán and Hadzi Vaskov (2023).

policies, I first reproduce the results of Bertoli and Fernández-Huertas Moraga (2013) for the 2013-2023 period and then complement it with event studies in which other origin countries are used as controls for the countries that were subject to specific bilateral immigration policies, as in Amuedo-Dorantes and Romiti (2024) or Elias et al. (2025). Finally, I follow Fernández-Huertas Moraga (2014) on the evolution of selection during the studied period.

The main contribution of the paper is to perform a thorough dissection of the factors that explain the Second Spanish Immigration boom. In this sense, the paper is close to the papers by Clark et al. (2007) and Hanson and McIntosh (2010) that explain historical immigration to the United States. The first one emphasizes the role of migration policies while the latter concentrates on the demographic changes in Mexico. This paper combines the perspective of a single destination, Spain in this case, with a comparison with other destination countries, as in Mayda (2010) and many other papers afterwards, like Bertoli et al. (2020) or Levelu et al. (2024).[5]

Next, the paper continues with a brief history of Spanish immigration. Section 3 performs a decomposition of immigration flows to Spain and other countries between origin-time, destination-time and bilateral time-varying factors. Section 4 uses higher frequency data on immigration flows to Spain to estimate the role of Spanish policies towards particular origins. Section 5 looks into the selection of immigration flows over the Second Spanish Immigration Boom and Section 6 concludes the paper.

2 A Brief History of Spanish Immigration

For most of its history, Spain was an emigration country. Many authors, such as Hatton and Williamson (1998) or Sánchez Alonso (1995), documented the role of Spain as one of the main sending European countries during the age of mass migration, between the end of the XIXth and the beginning of the XXth century, with significant flows directed towards the United States and South America.[6] In the XXth century, Spain was also the origin of refugee flows following the Spanish Civil War in 1936-1939 and then of economic migrants mostly directed towards Western Europe for the last part of the Franco dictatorship, between 1960

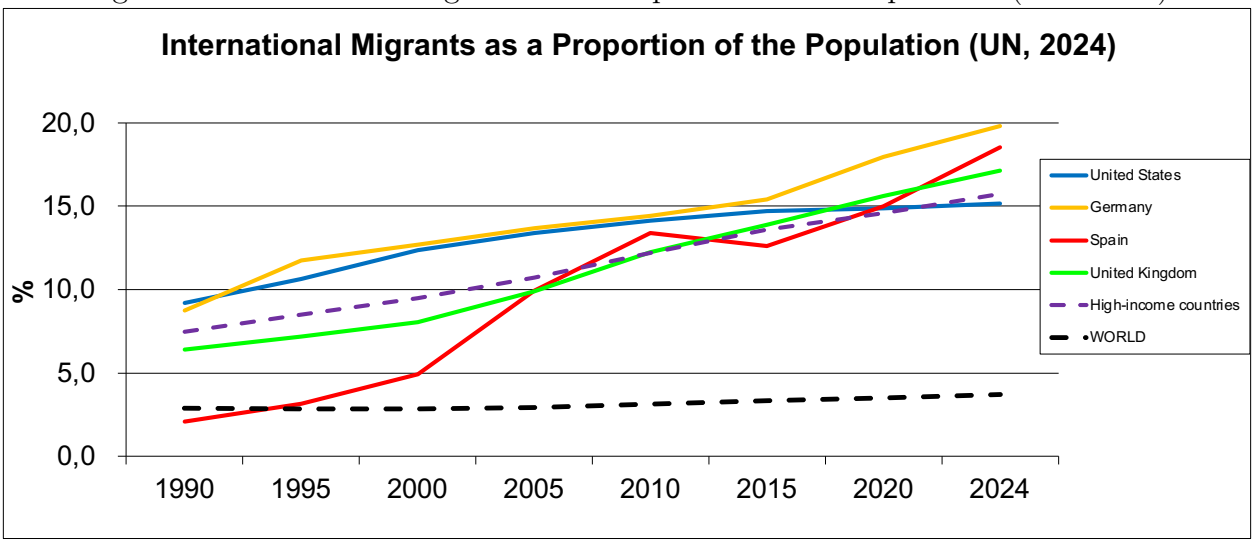
[5]See Beine et al. (2016) for a non-exhaustive review at the time and Ramos (2024) for a more recent assessment.

[6]More recently, Fernández Sánchez (2024) focused on the Galician diaspora to explain the causes and consequences for the origin region.

and 1975 (Bover and Velilla, 2005).

By 1990, Spain was still an emigration country. About 800,000 immigrants, defined as foreign-born individuals, lived in Spain, while there were almost 1.4 million Spanish-born emigrants living abroad. In fact, Figure 1 shows that the share of immigrants among Spanish residents in 1990 was below the world average. In 1990, 2.9 per cent of the world population lived in a country that was different from their country of birth. In Spain, only 2.1 per cent of the population in 1990 was born abroad (United Nations Department of Economic and Social Affairs, Population Division, 2024).

Figure 1: International Migrants as a Proportion of the Population (1990-2024)



Source: own elaboration on data from United Nations Department of Economic and Social Affairs, Population Division (2024)

International migration to Spain started growing in the 1990s and by 1995 it was already above the world average and Spain could be considered as an immigration country, with barely 20,000 more immigrants than emigrants estimated by United Nations Department of Economic and Social Affairs, Population Division (2024).

In the following 10 years, until 2005, Spain caught up with traditional immigration countries, such as the United Kingdom, and with the average immigration stock as a share of the resident population in high-income countries, as characterized by the United Nations. By 2010, already in the middle of the Great Recession, Spain was above the average for high-income countries, with 13.4 per cent of its population born abroad. Figure 1 shows a

slight decrease in this share to 12.6 per cent of the population by 2015, probably related to the impact of the debt crisis in Southern Europe. This decrease looks small in comparison with the increase in the previous years, but it is quite uncommon among immigration countries. Figure 1 shows that immigration continued growing, even if at a slower rate, in other destinations. In absolute numbers, the stock of international migrants in Spain decreased by almost 400,000 immigrants. In that period, only Russia, Syria and Pakistan lost more international migrants than Spain. Among developed countries, Greece followed in that particular ranking by losing 78,000 international migrants between 2010 and 2015 (United Nations Department of Economic and Social Affairs, Population Division, 2024).

Between 2015 and 2024, immigration to Spain grew again, reaching 18.5 per cent of the Spanish population by 2024, above the United States, the United Kingdom and the average for high-income countries. In Figure 1, only Germany among the major receiving countries had a larger share of its population born abroad by 2024, approaching 20 per cent.

Visually, the growth in Spanish immigration shown in Figure 1 looks almost as fast between 2000 and 2010, the First Spanish Immigration Boom, as between 2015 and 2024, the Second Spanish Immigration Boom.

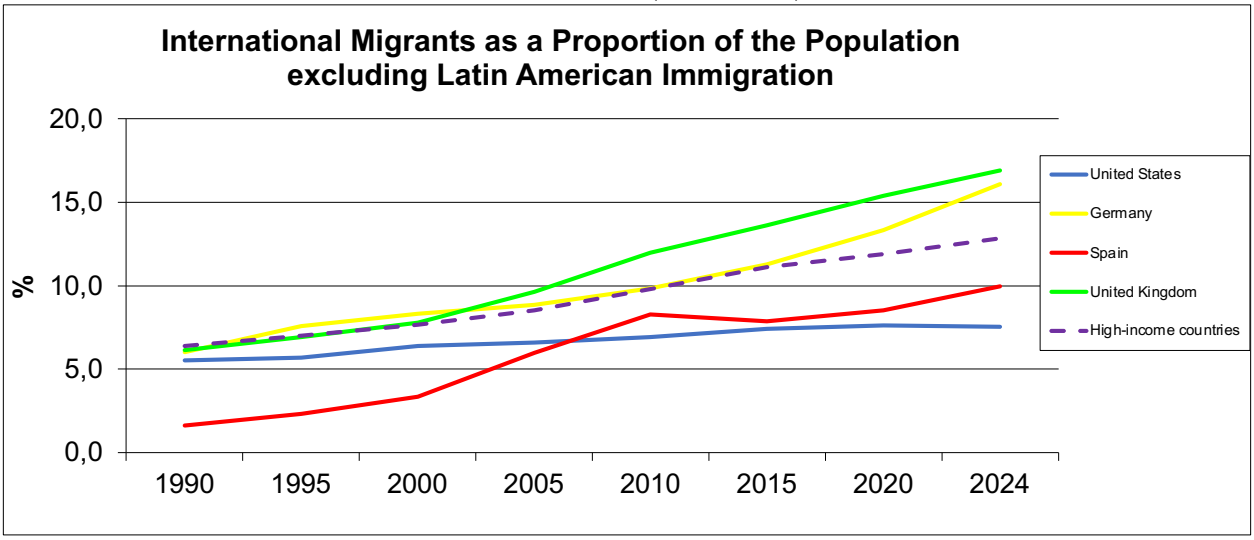
In terms of the composition of Spanish immigration by country of origin, authors like Fernández-Huertas Moraga et al. (2019) emphasized the role of Latin American immigration, which accounted for 40 per cent of the inflows during the first boom. By 2024, Latin American and Caribbean immigrants in Spain reached a maximum 46 per cent of the stock of total foreign-born residents in Spain.

Figure 2 shows the relevance of Latin American and Caribbean inflows of immigrants to Spain by dropping them in direct comparison to Figure 1.

As Cebolla Boado et al. (2013) argued with respect to the First Immigration Boom, Latin American immigrants make Spanish immigration more similar to US immigration than to European destinations. Without Latin American immigrants, neither Spain nor the United States would feature so prominently among the most preferred destination countries in the world. Spanish immigration would have also grown without Latin Americans, but would remain below traditional destination countries in Europe. This is true for both booms, but particularly so for the second one, when the growth rate of immigration stocks excluding Latin Americans is remarkably smaller than during the first boom.

In addition to the international comparison, both Immigration Booms can also be com-

Figure 2: International Migrants as a Proportion of the Population excluding immigrants from Latin American and Caribbean countries (1990-2024)

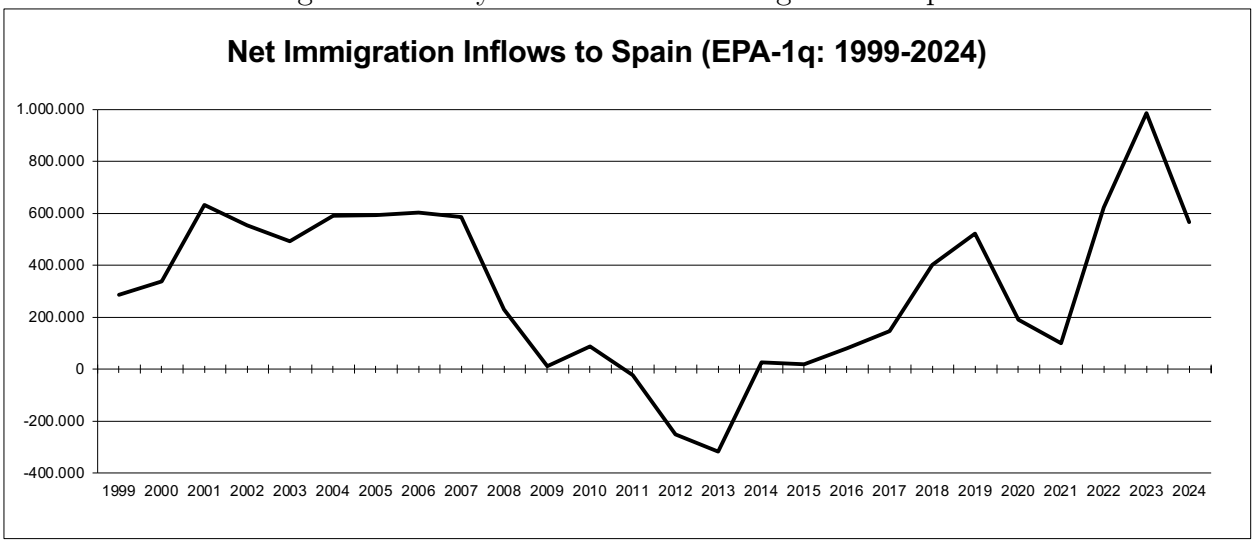


Source: own elaboration on data from United Nations Department of Economic and Social Affairs, Population Division (2024). For Germany, there are no separate data for Latin American countries, so the category "Others,", where they would be included, is subtracted. This category ranges between 19 and 35 per cent of German stocks of immigrants in the period.

pared by looking at the time series variation in the size of immigration inflows over time. To this end, I move briefly away from internationally comparable data collected by the United Nations and use time series from the Spanish Labor Force Survey (Encuesta de Población Activa), a quarterly household survey run by the Spanish Statistic Office: Instituto Nacional de Estadística. These series have the advantage of its higher frequency. In figure 3, I present the evolution of net inflows of foreign-born individuals interviewed in the survey and elevated using the survey weights.[7] I construct yearly net flows by subtracting the stock of foreign-born in a quarter from the stock of foreign-born four quarters earlier, in order to abstract from seasonal patterns. For example, the 2024 point comes from subtracting the 8.5 million immigrants counted by the Labor Force Survey in the first quarter of 2024 from the 9 million immigrants obtained in the first quarter of 2025.

[7]The EPA survey weights are based on the official population figures for each period, mostly obtained from the Spanish population registry.

Figure 3: Yearly Net Inflows of Immigrants to Spain



Source: own elaboration on data from INE (2025). Each data point subtracts the weighted stock (using survey weights) from four quarters before, using data from the first quarter of the following year. For example, the 2024 figure corresponds to the first quarter of 2025 minus the first quarter of 2024.

Figure 3 shows that both Immigration Booms were similar in terms of the magnitude of the inflows. During the First Immigration Boom, yearly inflows fluctuated around 600,000 arrivals per year between 2001 and 2007. During the Second, net inflows trend up since the bottom of the debt crisis in 2013, when 317,000 immigrants left the country, and then we have a second trough when Covid hit in 2020 and 2021. Still, if one takes the average for 2018-2024, it stands at almost 500,000 arrivals per year. If one takes the post-Covid period alone, 2022-2024, the average inflow jumps up to 725,000, well above yearly inflows during the First Immigration Boom. The last year shows a reduction of the net flows with respect to 2023, but it is early to tell whether arrivals are going to plateau, go down or increase in the near future. In the medium term, most migration forecasts establish that migration pressures into countries like Spain will remain high (Fernández-Huertas Moraga and López Molina, 2024).

To conclude this section, I provide some more detailed descriptive evidence on the composition of immigrant inflows in both booms by country of birth. To this end, Table 1 shows the Top-10 ranking of countries of origin both for 2000-2010 and for 2015-2024. As a reference, it also shows the Top-10 ranking in terms of stocks of immigrants in 2024 taken from

the data in United Nations Department of Economic and Social Affairs, Population Division (2024).

Table 1: Top-10 Origins for Spanish Immigrants

	First Boom (2000-2010)			Second Boom (2015-2024)			Stocks 2024		
1	Romania	687,115	16%	Colombia	448,164	15%	Morocco	1,088,408	12%
2	Morocco	491,896	12%	Venezuela	435,834	15%	Colombia	792,228	9%
3	Ecuador	353,932	8%	Morocco	351,929	12%	Venezuela	602,539	7%
4	Colombia	246,016	6%	Honduras	173,260	6%	Romania	522,578	6%
5	UK	217,141	5%	Peru	169,075	6%	Ecuador	432,111	5%
6	Bolivia	197,472	5%	Argentina	141,593	5%	Argentina	390,798	4%
7	Argentina	184,082	4%	Ukraine	131,963	4%	Peru	352,470	4%
8	Peru	154,062	4%	Cuba	86,146	3%	UK	294,986	3%
9	China	133,216	3%	Paraguay	78,582	3%	Honduras	218,548	2%
10	Bulgaria	122,621	3%	Brazil	76,918	3%	France	217,960	2%
	Top-10	2,787,553	65%	Top-10	2,093,464	70%	Top-10	4,912,626	55%
	Total	4,257,307	100%	Total	2,977,680	100%	Total	8,870,527	100%

Source: own calculations on data from United Nations Department of Economic and Social Affairs, Population Division (2024)

Table 1 depicts the evolution of the main countries of origin for Spanish immigration. By the end of 2024, 9 million immigrants lived in Spain. 82 per cent of them had arrived during the two booms shown in the table. The main origin country for Spanish immigrants in 2024 was Morocco, whose 1 million immigrants in Spain represented 12 per cent of the overall foreign-born population. It is also the only African country in the table, both in terms of stocks and in terms of net flows during both booms. It makes sense that Morocco is the main origin for immigration to Spain, given that it is Spain's closest developing country. In fact, Moroccan immigration was already sizeable before the two booms and consistently contributed 12 per cent to the growth of immigration both in 2000-2010 (second most relevant origin) and in 2015-2024 (third most relevant origin).

Most of the countries in Table 1 are Latin American countries. Ecuador, Colombia, Bolivia, Argentina and Peru were in the top-10 for the First Boom, while Venezuela, Honduras, Cuba, Paraguay and Brazil featured as new top origins for the second. Colombia, Argentina and Peru repeat in both booms, with Colombia as the main origin country in the Second

Spanish Immigration boom, closely followed by Venezuela, with both countries concentrating 30 per cent of all inflows. If geographical closeness is likely to explain Moroccan immigration to Spain, cultural, linguistic, religious and historical closeness are likely to explain Latin American immigration to Spain.

The main difference between the lists of origins in the two booms is related to Eastern Europe. Romania was the main country of origin for Spanish immigration during the First Boom and Bulgaria also appeared as the 10^{th} origin. During the Second Boom, only Ukraine shows up in the 7^{th} spot, mostly as a consequence of the Russian invasion of Ukraine that started in 2022.

Finally, two other types of origin appear in the rankings. Firstly, China is the only Asian country in the 9^{th} spot of the list during the First Boom. Secondly, Spain also received large inflows of British immigrants during the First Boom and kept relatively large stocks of UK and French immigrants in 2024. These immigrants from developed countries are typically considered separately. Many of them are related to retirement decisions and show quite different behavior and reaction from the natives in terms of residential segregation outcomes (Fernández-Huertas Moraga et al., 2019).

Summing up, the Second Spanish Immigration Boom is more Latin American and less Eastern European than the first, with a constant and relevant role for Moroccan immigration.

3 Decomposition of Bilateral Migration Flows

In order to understand the sources of the Second Spanish Immigration Boom, it is useful to start by using internationally comparable data (OECD, 2024) to check whether we should look for potential explanatory variables at the origin level, at the destination level or at the bilateral level. Origin and destination factors have been traditionally termed push (origin) and pull (destination) drivers of migration flows, while bilateral factors typically refer to a general concept of accesibility across countries. The three elements can be considered as part of a gravity approach to the modeling of migration flows (Beine et al., 2016), which can be micro-founded through a Random Utility Maximization model (McFadden, 1974).

The objective of using internationally comparable data is to gauge to what extent the Spanish case is an exception or just a manifestation of a general tendency of immigrants to move from developing to developed countries over time. To this end, I follow Bertoli et al.

(2022) and start by running different versions of the following regression:

$$mig_{odt} = FE_{ot} + FE_{dt} + FE_{od} + \epsilon_{odt} \tag{1}$$

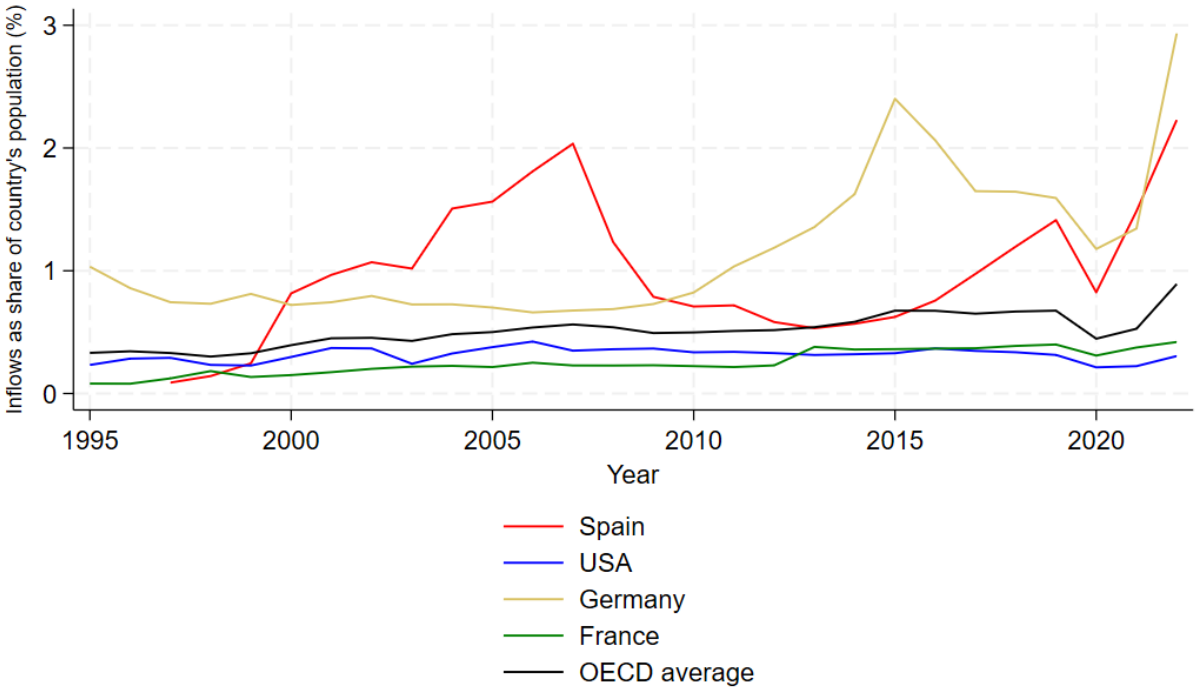
In equation 1, mig_{odt} stands for the log of international migration flows from origin country o to destination country d in year t. These flows can be explained by common destination-time fixed effects (FE_{dt}) or pull factors, origin-time fixed effects (FE_{ot}) or push factors, and by origin-destination fixed effects (FE_{od}).

Before getting into the estimation results, Figure 4 shows the evolution of immigration flows with respect to the destination country population over time for the main destination countries and the OECD average in the International Migration Database between 1995 and 2022 (OECD, 2024).[8]

Figure 4 is the yearly flows' analogue of the stocks in Figure 1. The population at destination is again used to normalize the inflows. The first remarkable element of the figure is how it shows the relevance of particular immigration episodes, or immigration booms across destination countries. For example, immigration to Germany exceeded 2 per cent of the German population both in 2015, during the so-called European refugee crisis, receiving large inflows of Syrian asylum seekers, among other origins (Bertoli et al., 2022), and in 2022, with the arrival of Ukrainian asylum seekers fleeing the Russian invasion of Ukraine. In the case of Spanish immigration, the First Boom is visible between 2000 and 2008, when immigration to Spain was clearly above the OECD average. The economic crisis in Spain after the Great Recession coincides with lower inflows, although still proportionally higher than those from traditional immigration countries such as the United States and France. The Second Immigration Boom is shown by an acceleration of inflows after 2013 that clearly goes above the OECD average after 2015 and is only briefly stopped by the reduction in inflows associated to the Covid period, mostly in 2020. Figure 4 also shows how the OECD average trended slightly up during the period, even if immigration inflows into large countries such as France and the United States remained relatively constant over their populations.

[8]For this paper, I will use the OECD membership before 1994, but replacing Turkey (founder country) with South Korean (joined in 1996) because of their development levels at the beginning of the period. This implies the analysis includes 24 countries with available immigration inflows data in the International Migration Database: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland and the United States. Results are robust to broader definitions, though.

Figure 4: Immigration Rates into selected OECD countries (1995-2022)



Source: own elaboration on data on yearly gross inflows from OECD (2024) and on population from OECD (2025b). The OECD average is weighted by population and corresponds to 24 OECD countries with migration data: founder countries, but replacing Turkey with Korea.

Using the data from Figure 4, but with the log of the migration inflows as the dependent variable, rather than immigration rates, Table 2 presents the results from estimating different specifications of Equation 1 by varying the included sets of fixed effects.

The first column of Table 2 shows the Adjusted R^2 from estimating Equation 1 on the full sample, from 1995 to 2022. These are 82,258 positive migration inflows from 211 origins into 24 OECD destinations. When only origin-year fixed effects are included in the model, these fixed effects are able to explain 41 per cent of the variation in the data. This is almost twice as much as destination-year fixed effects are able to explain, with the Adjusted R^2 remaining at 21 per cent in that case. Finally, when the model is saturated with the addition of dyadic fixed effects at the origin-destination level, the explanatory power of the model rises to 95 per cent.

Table 2: Contribution of Fixed Effects to Log Migration Inflows in the OECD

Dummies	**1995-2022**	**1999-2008**	**2013-2022**
Origin-year	0.41	0.37	0.45
Destination-year	0.21	0.23	0.17
All (including dyadic)	0.95	0.96	0.97

Source: own elaboration on data on yearly gross inflows from OECD (2024). The table shows Adjusted R^2 values for different specifications of Equation 1 that include the fixed effects denoted by the rows and the sample period denoted by the columns. Number of observations: 82,258.

This is the opposite pattern to the one that was described by Bertoli et al. (2022) for asylum flows into Europe during the refugee crisis, when destination-time fixed effects were much more relevant than origin-time fixed effects. However, it is consistent both with the relevance of origin factors in explaining Mexican migration flows to the United States (Hanson and McIntosh, 2010) and international migration flows in 1990-2020 and migration forecasts into the future (Fernández-Huertas Moraga and López Molina, 2024), notably demographic growth in the origin countries of international migrants. Among the time-invariant determinants of bilateral migration flows that could be behind the high explanatory power of the more saturated models in the third row of Table 1, we could list typical gravity variables such as physical distance, linguistic distance, cultural distance and generally common history between origin and destination countries that creates a permanent link between them (Beine et al., 2016). These time-invariant bilateral factors will not be the focus of this paper, since they do not change over time by definition and hence can only help to explain immigration booms in interaction with other variables.

The second and third columns of Table 2 show how this result is robust to focusing on two sample periods of the same duration, 9 years, that will be used in this part of the analysis to signal the First Spanish Immigration Boom (1999-2008) and the Second Spanish Immigration Boom (2013-2022). The role of origin-year factors is slightly increased from 37 per cent to 45 per cent from the first to the second period. This coincides with a reduction of the role of destination-year factors from 23 to 17 per cent in terms of explanatory power of the models, but the main message of a higher explanatory potential of origin-time factors for the evolution of migration flows to OECD destinations remains.

To get an idea of the ability of the fixed effects computed in Table 2 to explain not just the level, as reflected in the Adjusted R^2, but also the time evolution of migration flows to the OECD, particularly the increasing tendency reflected in Figure 4, Equation 2 introduces a simple decomposition exercise based on the estimates from the full fixed-effects specification in Equation 1.

$$\Delta mig_{odt} = \Delta \hat{FE}_{ot} + \Delta \hat{FE}_{dt} + \Delta \hat{\epsilon}_{odt} \tag{2}$$

Table 3 presents the results from the decomposition in Equation 2. The first two columns refer to the OECD average during the two periods of reference, 1999-2008 and 2013-2022, while the last two focus on the Spain averages. For example, the first entry, 0.90, implies that 90 per cent of the average change in log migration inflows to the OECD between 1999 and 2008 could be explained by the average change in estimated origin-year fixed effects in Equation 1. In mathematical terms, this would be $\frac{\Delta \bar{\hat{FE}}_{ot}}{\Delta \bar{mig}_{odt}}$, where the upper bars denote sample averages over the individual changes. This result implies that the relevant role of origin-time factors in explaining migration flows to the OECD could even be strengthened if we focus on the time evolution. Differently from origin-time factors, the role of destination-time factors is diminished in this decomposition in changes. Destination-year effects could only explain 6 per cent of the evolution in migration flows to the OECD between 1999 and 2008. For the 2013-2022, both origin-time and destination-time factors increase their potential explanatory power, jointly reaching up to 99 per cent of the observed change in average log migration flows.

Spain was different from the OECD average for the two Immigration Booms. In both cases, the role of destination-time factors was larger than the role of origin-time factors. In the First Boom, destination-year factors could be responsible for up to 68 per cent of the observed change in migration flows. The role of origin-time factors is non-negligible and sums up to 28 per cent. In the Second Spanish Immigration Boom, the role of origin-time factors increased to 37 per cent, while destination-time factors remained dominant at 57 per cent. It is remarkable that both origin-time and destination-time variation have the potential to explain up to 95 per cent of the observed variation in log migration flows to Spain.

Of course, it must be noted that this is an accounting exercise that is useful to provide an idea of the strength of different factors in comparison with other destination countries. However, it does not prevent particular origin, destination or dyadic variables from having

Table 3: Contribution of Fixed Effects to the Change in Log Migration Inflows in the OECD

Dummies	**1999-2008**	**2013-2022**	**Spain 1999-2008**	**Spain 2013-2022**
Origin-year	0.90	0.92	0.28	0,37
Destination-year	0.06	0.07	0.68	0.57
All	0.96	0.99	0.96	0.95

Source: own elaboration on data on yearly gross inflows from OECD (2024). The table shows the ratio between the average change in log migration inflows explained by the fixed effects denoted by the rows and the total change in log migration inflows for the full specification of Equation 1, as shown by Equation 2.

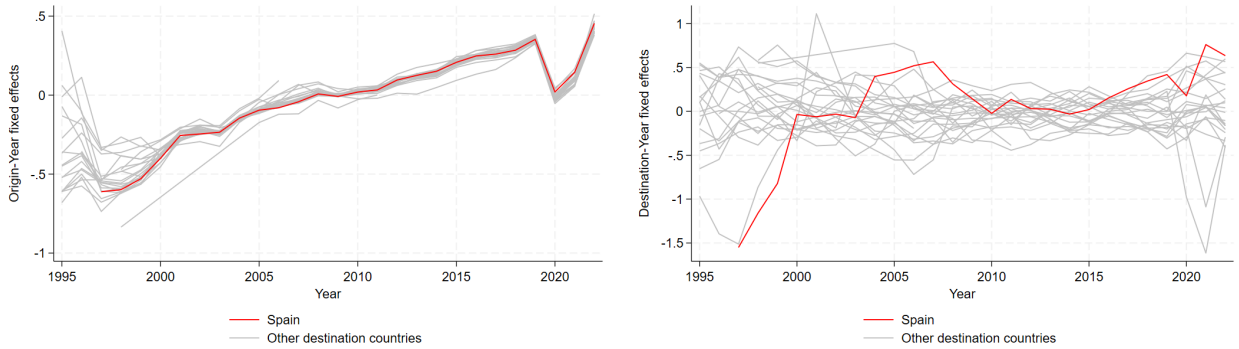
a larger causal effect on migration flows from the one documented here in a counterfactual sense. For example, it could be the case that a particular bilateral policy, as the visa policies emphasized by Bertoli and Fernández-Huertas Moraga (2013), could exert a larger impact on migration flows than the remaining 5 per cent in the last column of Table 3. It is just something that may not have happened during the studied period.

Why are the results in Table 3 so different for Spain? First, it is useful to visually inspect what the estimated fixed effects look like. Figure 5 shows the evolution of Spanish destimation-time and origin-time fixed effects in comparison with other OECD destinations in the datasets.

Origin-time components, by definition, are common to all destination countries, as Figure 5 reflects. The differences across destinations in the left panel of Figure 5 correspond to changes in the composition of active origins for different destinations. They show an increasing migration pressure coming from origin countries that has been related elsewhere to demographic push factors, mostly the growth in the young population in developing countries (Hanson and McIntosh, 2010; Fernández-Huertas Moraga and López Molina, 2024). Spain is not different from other destinations in this sense, again by definition, as origin effects need to be common as long as there are no missing data. This increasing migration pressure only went down briefly during the Covid pandemic.

The right panel of Figure 5 represents the evolution of destination-year fixed effects from Equation 1. They mostly mimic the evolution of immigration rates in Figure 4. There is a

Figure 5: Evolution of origin-year and destination-year components of log migration flows to OECD countries (1995-2022)



Source: own elaboration on data on yearly gross inflows from OECD (2024). The figures show the Spanish components in red and the other 23 OECD destination countries' components in grey. The origin-time component is averaged for each destination.

huge increase in this component between 1998 and 2000 that could be artificially related to the improvement in data collection for immigrants in Spain that took place after the approval of the Law 4/2000, which granted even undocumented immigrants the right to register and access public services in Spain (Fernández-Huertas Moraga et al., 2019). After that, the component fluctuates around other OECD destinations, but both Spanish Immigration Booms are still easily discernible.

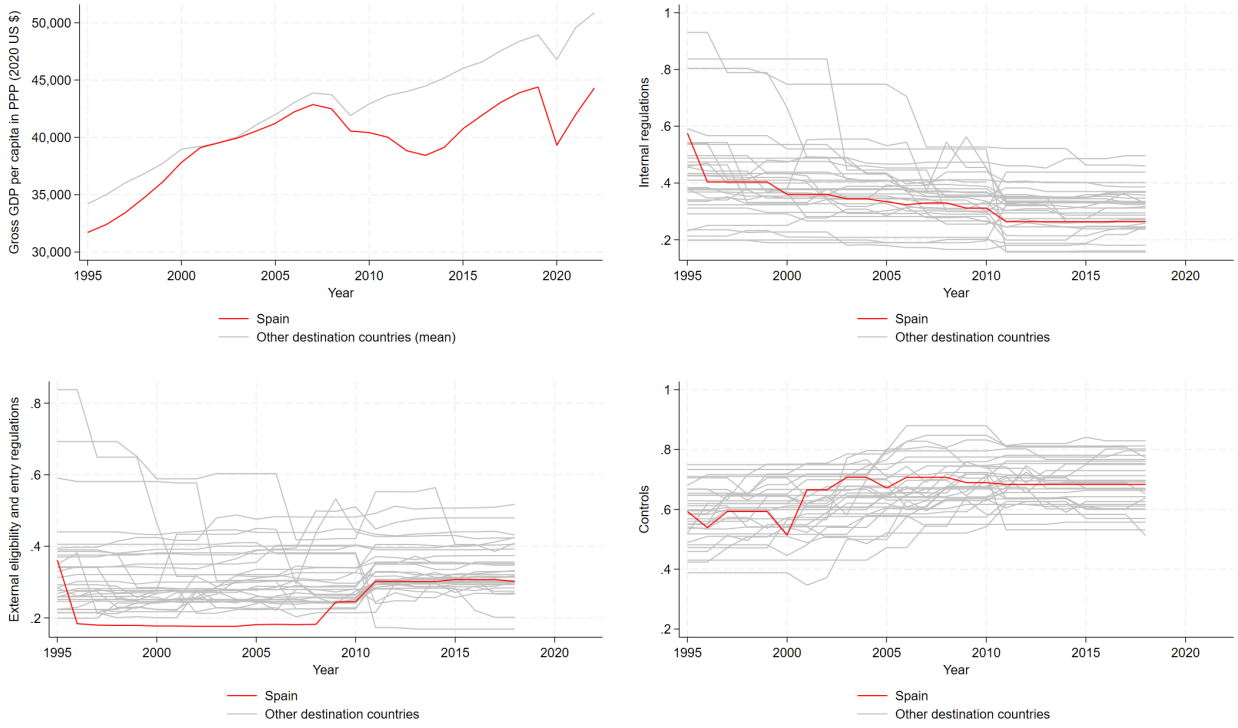
Both booms could easily be associated to the evolution of the Spanish economy, which boomed as well until 2008 and then suffered twin crisis with both the Great Recession and the European Debt crisis. The other primary suspect for the evolution of these destination-year fixed effects could be overall Spanish immigration policies, defined as those that affects all immigrant origins equally. The most relevant migration policies of these years would be the massive regularizations that Spain undertook in 2000, 2001 and 2005 (Elias et al., 2025), but the biggest jump in the fixed effects takes place in 2004 so this is not immediately obvious.

Next, I explore these two candidate explanations in a more comparable and systematic fashion by regressing the destination fixed effects estimated in Equation 1 on proxies for economic conditions and immigration policies at destination. The specification is the following:

$$\hat{FE}_{dt} = \beta_1 GDPpc_{dt} + \beta_2 MigPol_{dt} + FE_d + FE_t + \varepsilon_{dt} \quad (3)$$

$GDPpc_{dt}$ is the log of the GDP per capita in PPP terms of each country computed by dividing the GDP data in PPP terms from OECD (2025a) by the population data from OECD (2025b). For migration policies ($MigPol_{dt}$), I use three different indices from the IMPIC database (Helbling et al., 2024): internal regulations, external eligibility and entry regulations, and migration controls.[9] The evolution of these variables in Spain with respect to the rest of OECD countries is depicted in Figure 6.

Figure 6: Evolution of GDP per capita and migration policies in the OECD



Source: own elaboration on data on GDP at constant PPPs from OECD (2025a) divided by population from OECD (2025b) and immigration policies from Helbling et al. (2024). Migration policies are coded between 0 (open policies) and 1 (restrictive policies).

In terms of GDP per capita, the evolution of the Spanish economy over these years is not particularly remarkable in the context of the OECD between 1995 and 2022, as seen in the

[9]Unfortunately, the data by Helbling et al. (2024) end in 2018. I follow IMF (2025) in using these three indices.

upper left panel of Figure 6. GDP per capita peaked in 2007 before the Great Recession, and then went back to a decade earlier by 2012 with the European debt crisis. 2013 was the start of another growth period that peaked in 2019 and was followed by the short decrease in 2020 caused by the Covid pandemic. By 2022, the GDP per capita had almost recovered its 2019 level.

With respect to immigration policies, the upper right panel of Figure 6 shows that Spanish policies became more open towards international migrants in the domain of internal regulations between 1995 and 2018, but the same trend can be observed in many other OECD countries. The opposite happened in the domain of migration controls in the lower right panel, which became more restrictive both in Spain and in the rest of the OECD.

The main difference in migration policies between Spain and other OECD countries can be found in the evolution of external eligibility and entry regulations in the lower left panel of Figure 6. In this domain, Spain was the most liberal country in the OECD between 1996 and 2008, during the First Spanish Immigration Boom. Spain became more restrictive towards immigrants between 2008 and 2011 but remained in a relatively open stance with respect to other OECD countries.

After describing the evolution of the data over time, Table 4 presents the results from estimating different versions of Equation 3. In columns 1 to 4, we can observe that neither GDP per capita nor migration policies are significantly correlated with destination-year fixed effects.[10] When the three elements of migration policies are added together in column 5, internal regulations are marginally correlated with the fixed effects for the 1995-2018 period, but the three variables and the fixed effects are only able to explain 15 per cent of the variation in the dependent variable. Finally, column 6 puts together the four variables. In that case, after controlling for migration policies, GDP per capita is significantly and positively correlated with the attractiveness of destination countries in the OECD, as reflected in the estimated fixed effects of Equation 1. Still, the four policies only explain jointly 17 per cent of the variation in the dependent variable.

In conclusion, economic conditions and comparable migration policies across countries do not seem to account for most of the variation in the attractiveness of OECD countries to immigration flows. Given the low relevance of destination factors in explaining immigration

[10]This is also the case in specifications without destination or year fixed effects. Results available from the author upon request.

Table 4: Explaining Destination-Year Fixed Effects in Log Migration Inflows to the OECD

	(1)	(2)	(3)	(4)	(5)	(6)
Log of GDP per	0.405					0.853**
capita in PPP	(0.506)					(0.332)
Internal regulations		-0.837			-1.160*	-1.148*
		(0.712)			(0.631)	(0.658)
External eligibility and			-0.235		0.759	0.995
entry regulations			(0.679)		(0.736)	(0.774)
Controls				-0.403	-0.364	-0.477
				(0.388)	(0.426)	(0.418)
Observations	618	522	522	522	522	522
Destination FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.001	0.143	0.120	0.123	0.149	0.169

Notes: clustered standard errors by destination in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Own elaboration on data on GDP at constant PPPs from OECD (2025a) divided by population from OECD (2025b) and immigration policies from Helbling et al. (2024). The dependent variable are destination-year fixed effects from estimating Equation 1 on 1995-2022 data.

flows overall, reflected in Tables 2 and 3, these are not particularly concerning results.

However, what is not concerning for the rest of the OECD might be concerning for Spain, as most immigration flows to Spain during the two Immigration Booms could be related to destination-year factors. In order to check whether Spain is also singular in the relationship between destination-year fixed effects and the introduced measures of economic and political attractiveness, Table 5 shows the results of estimation Equation 3 only on Spanish data.

First, column 1 in Table 5 shows a very strong correlation between GDP per capita in Spain and the Spanish destination-year fixed effects extracted from Equation 1. In fact, GDP per capita alone is able to account for 82 per cent of the variation in the attractiveness of Spain towards immigration flows that these fixed effects represent. Of course, this correlation takes place among only 26 observations and was already apparent in the visual comparison of Figures 5 (right panel) and 6 (upper left panel), but it is still remarkable in two dimensions.

Table 5: Explaining Destination-Year Fixed Effects in Log Migration Inflows to Spain

	(1)	(2)	(3)	(4)	(5)	(6)
Log of GDP per	6.791***					3.793***
capita in PPP	(0.815)					(0.825)
Internal regulations		-6.250**			-22.871***	-14.626***
		(2.216)			(3.053)	(2.195)
External eligibility and			1.993		-15.172***	-10.019***
entry regulations			(1.657)		(1.968)	(1.507)
Controls				6.974*	-0.503	-1.461**
				(3.824)	(0.610)	(0.582)
Observations	26	22	22	22	22	22
Adjusted R^2	0.818	0.329	0.005	0.406	0.872	0.937

Notes: robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Own elaboration on data on GDP at constant PPPs from OECD (2025a) divided by population from OECD (2025b) and immigration policies from Helbling et al. (2024). The dependent variable are destination-year fixed effects for Spain from estimating Equation 1 on 1995-2022 data.

The first one is the sheer size of the explanatory power of a single variable. The second one is the large difference between the ability of GDP per capita to explain Spanish fixed effects with respect to other countries in the OECD.

In columns 2 to 4 of Table 5, the different migration policy indices are also correlated with the Spanish fixed effects. Internal regulations are the most significantly correlated policy and are able to explain 33 per cent of the overall variation. Migration controls in column 4 are less significantly correlated and also with a potentially wrong sign, although they would be able to explain alone up to 41 per cent of the correlation. When the three policies are introduced together in column 5 of Table 5, they could account for 87 per cent of the Spanish attractiveness, even more than GDP per capita alone, with a more significant role for external and internal regulations. It must be recalled that it was the latter the one that was more different from the rest of the OECD, with Spain as the more liberal country in this dimension of external eligibility and entry regulations, in particular during the First Spanish Immigration Boom (lower left panel in Figure 6).

Finally, GDP per capita and the three migration policy indices are included in the full specification in column 6 of Table 5. The four elements can account for up to 94 per cent of the variation in the Spanish destination-time component of immigration in comparison with the rest of the OECD. One should not overinterpret the results of a regression with only 22 observations (1995-2018), but again the difference with the rest of the OECD appears remarkable. There seems to be a Spanish singularity in the role of Spanish-specific factors in explaining international migration flows.

4 The Role of Bilateral Policies

In this section, the analysis first revisits the work of Bertoli and Fernández-Huertas Moraga (2013) to check whether the factors that shaped origin-only and bilateral components of migration flows to Spain during the First Boom studied in their paper continue to operate during the Second Spanish Immigration Boom. Hence, the Spanish general attractiveness emphasized in the previous section is conditioned out in this one, in order to focus on short-run fluctuations in economic conditions in origin countries and in the role of bilateral migration policies and, more specifically, visa policies affecting the entry into Spain of citizens of particular origin countries.

4.1 Regression Analysis

Bertoli and Fernández-Huertas Moraga (2013) ran different versions of the following model:

$$sh\_mig_{ot}^{SP} = \alpha_1 GDPpc_{ot-1} + \alpha_2 visa_{oSPt} + \beta' \mathbf{X_{ot}} + FE_t + FE_{oy} + \lambda_{\mathbf{i}}' \bar{\mathbf{z}}_{\mathbf{t}} + \eta_{ot} \qquad (4)$$

$sh\_mig_{ot}^{SP}$ in Equation 4 denotes the log of the emigration rate to Spain, coming from origin country o at quarter t. This is defined as the number of immigrants from o that arrived in quarter t divided by the population of country o, that is, an approximation to the log odds of migrating that would be derived from a classic microfoundation of the gravity migration model based on the random utility maximization framework (Beine et al., 2016). As in Bertoli and Fernández-Huertas Moraga (2013), the independent variables of interest are the economic conditions at origin, proxied by the GDP per capita of each origin country o in each quarter t, and one particular migration policy: whether Spain asks country o nationals

for a travel visa to be able to enter the country in quarter t. This is a dummy variable that takes the value 1 if a travel visa is required and 0 if visa-free entry is possible.

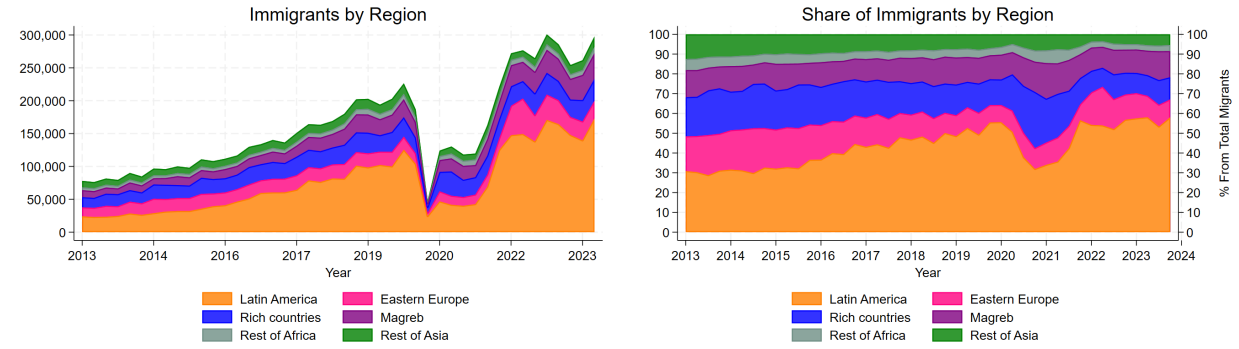
Equation 4 also features control variables ($\mathbf{X_{ot}}$), namely migration policies such as belonging to the Schengen area (only Croatia entered in 2023), belonging to the European Union (Croatia entered in 2013 and the UK left in 2021), having a Social Security agreement with Spain (Brazil, Cabo Verde, China and Senegal in the period), the special provision granting asylum to rejected Venezuelan asylum seekers in February 2019 and the special access for Ukrainians following the Russian invasion in February 2022.

The specification presented in Equation 4 is completed by quarter fixed effects (FE_t) and origin-year fixed effects (FE_{oy}). With origin fixed effects, Equation 4 would be a classic fixed effects model that would control for time-invariant characteristics of the origin country o, such as the distance from Spain, both physical, linguistic or cultural, among others, or time-invariant policies of Spain towards that origin, for example the Spanish citizenship policy that offers access to the Spanish nationality after two years of legal residence in Spain for some origins, mostly from Latin American, and after ten years for the rest (Domenella, 2025). Since origin-year fixed effects are included, in order to follow closely Bertoli and Fernández-Huertas Moraga (2013), the specification also controls for slowly time-varying factors affecting emigration to Spain, such that the model will only pick up within-year variation in the attractiveness of economic conditions at origin and migration policies. One example of these slowly varying time factors could be network effects created by the presence of co-nationals of country o living in Spain.

Finally, one specification of Equation 4 will also include origin-specific effects of the cross-sectional averages of the variables in the model, both the dependent and the independent ones. This is the Commom Correlated Effects (CCE) model proposed by Pesaran (2006), which Bertoli and Fernández-Huertas Moraga (2013) used to control for multilateral resistance to migration. The CCE model can control for general forms of cross-sectional dependence, which may appear in the data in case GDPs are correlated between Spanish origins and alternative destinations or in case migration policies are correlated across alternative destinations. If that is true, the migration policy of, say, France will be an omitted variable in Equation 4, which the CCE estimator can control for. This is likely to be true in the European context, where Spain coordinates its visa policy with that of other EU member countries.

Before turning to the estimation of Equation 4, Figure 7 presents the evolution of quarterly immigration flows to Spain between 2013 and 2023, during the Second Spanish Immigration Boom, together with their composition in terms of countries of origin, where the regions are defined as in Fernández-Huertas Moraga et al. (2019).[11]

Figure 7: Evolution of Quarterly Immigration Inflows to Spain by Region of Origin (2013-2023)



Source: own elaboration on data from INE (2025b) and INE (2025a) for registration of foreign-born individuals coming from abroad.

The left panel of Figure 7 shows the clear increasing tendency of immigration flows to Spain at the quarterly level, with the parentheses of the Covid quarters in 2020-2021 and a hint of a stabilization after 2021, between 250,000 and 300,000 arrivals per quarter. The right panel reiterates the point made in Section 2 about how this Second Spanish Immigration Boom became progresively more Latin American. Latin American inflows reached around 30 per cent of the flows in 2013 and increased to almost 60 per cent of the flows ten years later, at the expense of migration both from Eastern Europe and from rich origins, mostly.

Table 6 presents the results from estimating the two main versions of Equation 4 that appeared in Table 2 of Bertoli and Fernández-Huertas Moraga (2013), namely one with and one without common correlated effects. Given the common methodology, it is easy to

[11]The data come from INE (2025b) and INE (2025a). There is a break in the series in 2021, where the Statistic for Residential Variations (Estadística de Variaciones Residenciales, EVR), which counted all changes in registrations in the Spanish municipal registry, was substituted by the Survey for Migrations and Changes of Residence (Estadística de Migraciones y Cambios de Residencia, EMCR). The latter is mostly based on the former, with some adjustments coming from using alternative administrative sources with data on immigration.

compare the results from both papers.

Table 6: Determinants of quarterly emigration rates to Spain (2013-2023)

Dependent variable:	Log of Emigration Rate	
	OLS	CCE
Log Real GDP pc Lag 1	0.228**	-0.432
	(0.109)	(0.279)
Log Real GDP pc Lag 2	-0.324***	-0.107
	(0.112)	(0.337)
Log Real GDP pc Lag 3	0.111	0.906**
	(0.097)	(0.363)
Log Real GDP pc Lag 4	-0.008	-0.165
	(0.176)	(0.269)
Visa Requirement	-0.136	-0.457*
	(0.103)	(0.235)
Cumulated GDP pc Lag 2	-0.096	-0.539
	(0.161)	(0.371)
Cumulated GDP pc Lag 3	0.015	0.367
	(0.214)	(0.524)
Cumulated GDP pc Lag 4	0.008	0.201
	(0.331)	(0.711)
CCE Interactions p-value	-	0.000
Observations	2959	2959
Countries of origin	74	74
Adjusted R^2	0.990	0.993

Notes: clustered standard errors by origin in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Own elaboration on data detailed in the Appendix. Regressions weighted by population at origin. Dependent variable is the log emigration flows to Spain from an origin divided by the population of the country of origin. Both specification include quarter fixed effects and origin-year fixed effects.

Regarding the effects of economic conditions at origin, Table 6 finds no significant relationship between short-term (within-year) changes in GDP per capita at origin and emigra-

tion rates in any of the two specifications. If origin fixed effects are used instead of origin-year fixed effects, so that longer term changes can be exploited, the cumulated elasticity of the emigration rate with respect to GDP per capita at origin increases up to -0.6,[12] which would still be well below the elasticity of -3 estimated by Bertoli and Fernández-Huertas Moraga (2013) for the 1997-2009 period. The difference in results could be due to different conditions in both periods. For example, if the estimates are repeated for the 2013-2019 period, without including the Covid years in which both migration flows and GDPs fell all over the world, the elasticity goes up to -1 in the OLS model and to -0.8 with the CCE estimator,[13] still much smaller than during the First Boom.

The main result in Bertoli and Fernández-Huertas Moraga (2013) had to do with the effect of visa requirements on quarterly migration flows, with a point estimate of -1.34 in the CCE specification that translated into a semi-elasticity of -0.74, that is the imposition of the visa requirement to travel to Spain between 1997 and 2009 was associated with a decrease in the emigration rate of 74 per cent. In Table 6, the estimated coefficient for the visa requirement is -0.46, only marginally significant, which translates into a semi-elasticity of -0.37. Hence, during the Second Spanish Immigration Boom, visa requirements were associated with a decrease in the emigration rate of 37 per cent. These semi-elasticities should be interpreted as upper-bounds of the actual effects of visa policies, since the full effect would also depend both on the baseline migration rates from the country of origin and on the potential general equilibrium effects of the flows (Bertoli et al., 2017).

4.2 Event Studies

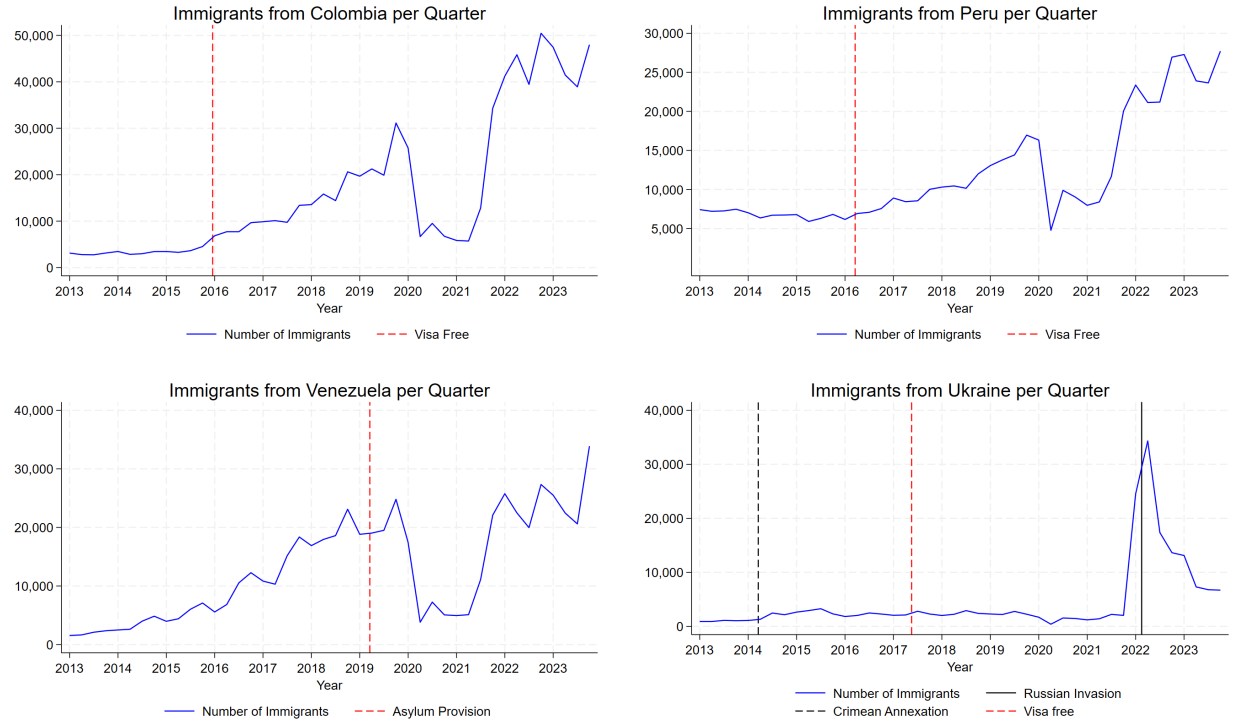
Next, the strength of the marginally significant visa result obtained in Table 6 is explored more carefully by looking at the specific cases of bilateral policies that affected some of the main countries of origin for immigration to Spain during the Second Immigration Boom, in particular Colombia, Peru, Venezuela and Ukraine.

First, Figure 8 presents the evolution of quarterly migration flows from the four countries. In the upper left corner, it can be observed that immigration to Spain from Colombia took off after visa-free access was granted to Colombians in December 2015. However, it is difficult to gauge from this graph whether there is a causal effect of the policy on the increasing flows.

[12] Results available from the author upon request.

[13] Results available from the author upon request.

Figure 8: Evolution of Quarterly Immigration Inflows to Spain by Country of Origin (2013-2023)



Source: own elaboration on data from INE (2025b) and INE (2025a) for registration of foreign-born individuals coming from abroad. The red vertical lines point to particular policies that affected the four countries: visa policies for Colombia, Peru and Ukraine and asylum provisions for Venezuela and Ukraine.

The same can be said about the upper right panel in Figure 8. Peruvian inflows took off after Peruvians were granted visa-free access to Spain in March 2016. However, when the same policy was applied to Ukrainians in June 2017, there was no discernible effect on the inflows to Spain, as the lower right panel of Figure 8 reflects.

The lack of reaction of the Ukrainians to the bilateral visa policy change contrasts with the clear effect both of the start of the Russian invasion of Ukraine and the activation of the European Temporary Protection directive that granted access to temporary refugee-like status in March 2022. This did not happen during the Russian invasion of Crimea in 2014, but the same can be said about Ukrainian migration to other countries (Guichard et al., 2022).

Finally, the lower left panel of Figure 8 represents the inflows of Venezuelan into Spain. In red, it can be seen the provision approved by the Spanish Ministry of the Interior at the end of February 2019, by which it granted asylum even to Venezuelan rejected applicants. In a sense, the provision meant that Venezuelans had automatic access to asylum-like status in Spain from that date. This did not seem to affect inflows into Spain, which had already been growing since the beginning of the period. It is useful to observe Venezuelans as well because they will be a control for the visa policies in some of the specifications below, given that Venezuelans always had visa-free access to Spain.

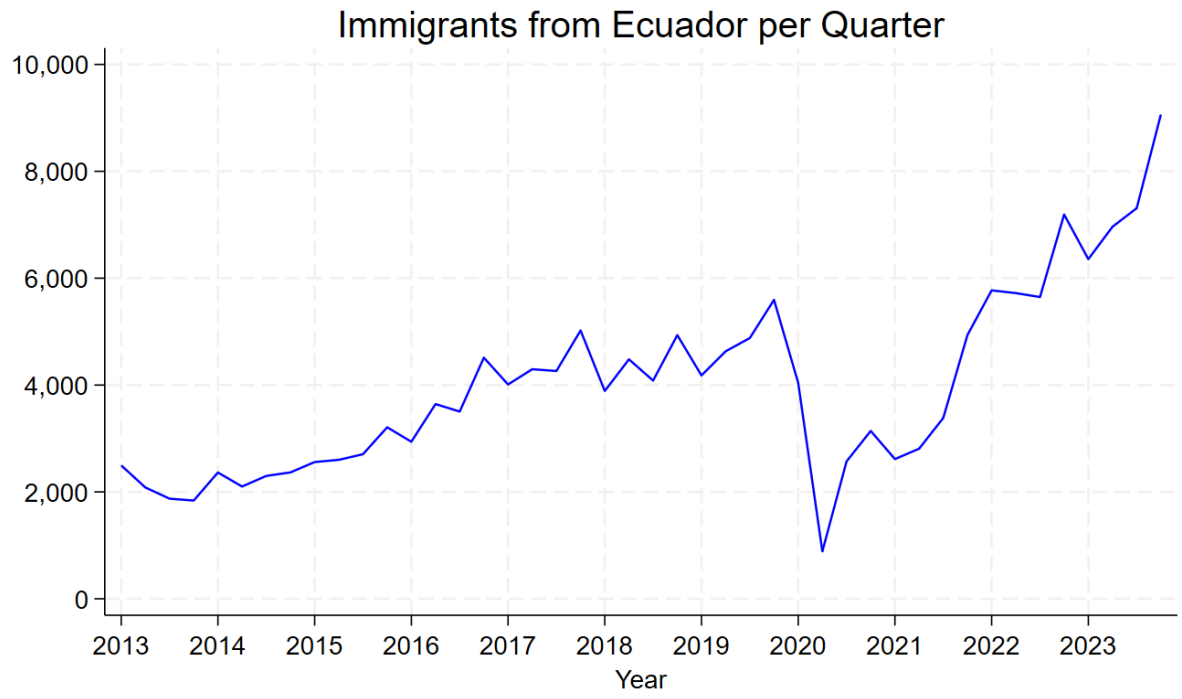
For a purer example of a control, Figure 9 shows the evolution of migration inflows of Ecuadorians to Spain between 2013 and 2023. No policy is apparent in the graph because I am not aware of any significant bilateral change that affected immigrants from Ecuador in Spain during the period. Ecuadorians had enjoyed visa-free access to Spain until 2003 and that is when Ecuador became one of the top countries in immigration to Spain during the First Boom (Bertoli et al., 2011, 2013). While Figure 9 appears comparable, for example, to the upper panel of Figure 8 for Colombians, with an increasing tendency that briefly stops with Covid, the magnitude of the increases is vastly different. For Colombia, quarterly inflows start below 5,000 in 2013 and end close to 50,000 by 2023, a ten-fold increase. In the same period, Ecuadorians started around 2,000 in 2013 and did not arrive to 10,000 by 2023, less than a five-fold increase. Both were impressive, but the Colombian one was much larger.

Were these different increases the effect of bilateral visa policies? To address this question more formally, the following specification is run on the log of quarterly migration flows to Spain:

$$mig_{ot} = \sum_{\tau=-t_0}^{t_T} \delta_\tau visa\_free_{it}^{\tau} + FE_o + FE_t + \omega_{it} \tag{5}$$

mig_{ot} is the log of the gross migration inflows of individual born in country of origin o arrived in Spain in quarter t. The variable $visa\_free_{it}^{\tau}$ takes value 1 if there is visa-free access for individuals born in origin country o in quarter $t + \tau$ and 0 otherwise. It must be noticed that this variable is defined as the complement of the visa requirement variable $visa_{oSPt}$ in Equation 4. The reason why this definition is reversed is the fact that most policy changes that took place in Spain in 2013-2023 were in the direction of granting visa-

Figure 9: Evolution of Quarterly Immigration Inflows to Spain from Ecuador (2013-2023)



Source: own elaboration on data from INE (2025b) and INE (2025a) for registration of Ecuadorian-born individuals coming from abroad.

free access, differently from the First Boom.[14] The specification in Equation 5 also includes origin (o) and quarter (t) fixed effects. The former control for dyadic-specific determinants of migration flows to Spain, such as the physical or cultural distance of country o with respect to Spain. They also controls for origin-specific factors, such as being a landlocked country of the average climate. The latter time fixed effects control for Spanish-level characteristics, such as the general attractiveness of Spain as a destination, both in terms of economic conditions and of general migration policies like the ones studied in the previous section (Helbling et al., 2024).

In a classic event study specification such as Equation 5, δ_τ can both be used to test the parallel trends assumption for negative values of τ and to compute the dynamic effects of the visa policy for positive values of τ. In this generalized difference in differences specification,

[14]Only Vanuatu's visa-free access was revoked in May 2022 after being granted in May 2015.

the control group includes all origins that did not see changes in their visa-free access to Spain while the treatment is defined by the change in this visa-free access.[15]

Overall, Spain granted visa-free access to 20 countries during the period. In addition to Colombia, Peru and Ukraine, already mentioned, these were: Georgia, Moldova, Trinidad and Tobago, Dominique, Grenada, Saint Lucia, Saint Vincent, United Arab Emirates, Vanuatu (later revoked), Micronesia, Tuvalu, Marshall Islands, Kiribati, Palaos, Tonga, East Timor and Samoa.

Figure 10 presents the results from running specification 5 on all migration flows to Spain during the period. The pre-period evolution is broadly consistent with parallel trends. However, there does not seem to be any effect of visa-free access on subsequent migration flows. There are a couple of significant coefficients that show up around 5 years later, but it would not make sense to attribute them to the treatment.

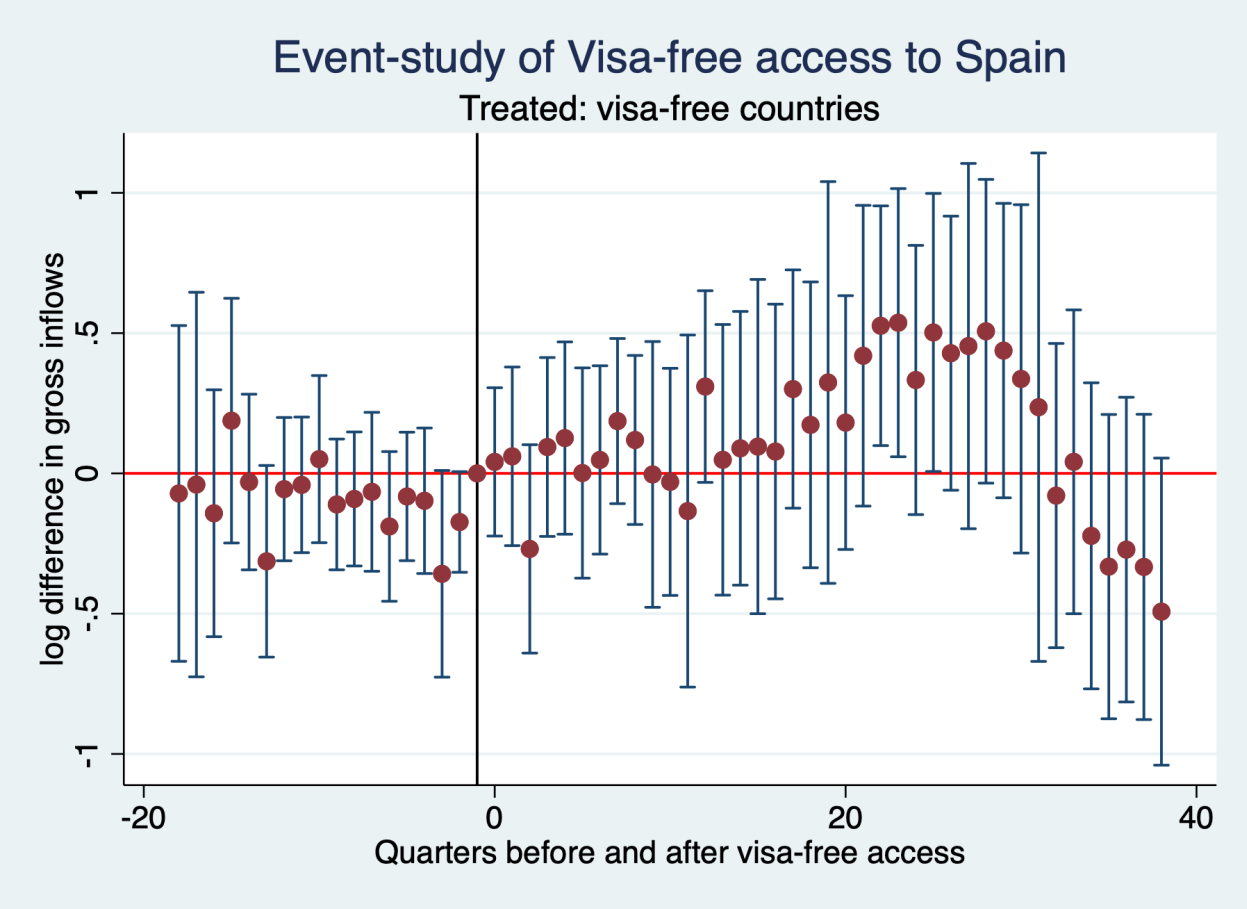
Given the list of treated countries, this result that averages over all policy changes that took place at different points in time (staggered treatment) may not be considered surprising. To dig deeper behind the potential heterogeneity that Figure 10 may hide, one possibility is to use an estimator that can deal with staggered treatments at the same time that it allows for easy aggregations across both time and treatment groups. This is the case of the estimator proposed by Callaway and Sant'Anna (2021).

Figure 11 presents the event study plot coming from the estimator of Callaway and Sant'Anna (2021). The main difference between Figure 11 and Figure 10 above is that the former uses only never treated countries, that is countries with a visa requirement over the whole period, such as Ecuador, as a control. Still, it can be seen that the general picture is very similar. While there are not pure parallel trends in the pre-period, the estimates cluster around zero. For the post-period, a clear increasing tendency only appears after 5 years and it disappears a couple of years later. It looks more like a Covid effect than like a visa policy effect.

However, the advantage of the estimator of Callaway and Sant'Anna (2021) is the possibility to group ATT's (average treatments on the treated estimators) along any relevant dimension. When the ATT's of this estimation are grouped by cohort of treatment, only four cohorts show significant effects of the visa policy on average: Colombia (0.96), Peru

[15]Using as a control only countries with a visa requirement does not change the results presented below, as it will be shown below.

Figure 10: Event Study of the Effect of Visa-Free Access on Quarterly Migration Flows to Spain by Country of Origin (2013-2023)



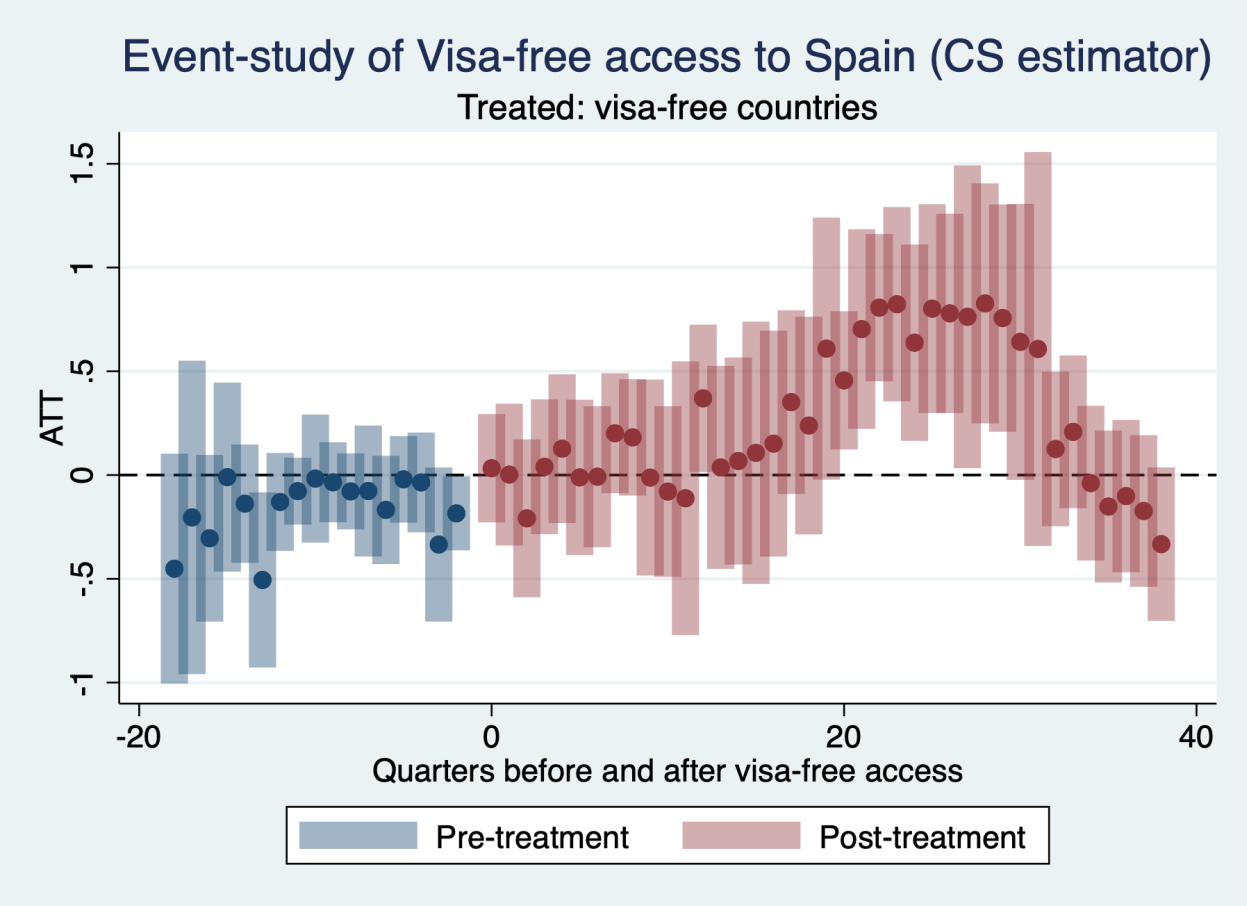
Note: representation of δ_τ from Equation 5. The dependent variable is the log of gross migration inflows from a country per quarter. 95 per cent confidence intervals computed using clustered standard errors at the country of origin level. Number of observations: 6,898.

(0.67), Moldova (0.17) and the United Arab Emirates (0.74).[16] The global average is 0.15, with an associated p-value of 0.06, a marginally significant result comparable to the one of the CCE estimator in Table 6.

The event studies derived from the ATT's for these four countries of origin are depicted in Figure 12. The upper left panel corresponds to Colombia, the main country of origin for immigration to Spain during the Second Spanish Immigration Boom. For Colombia, pre-

[16]Results available from the author upon request.

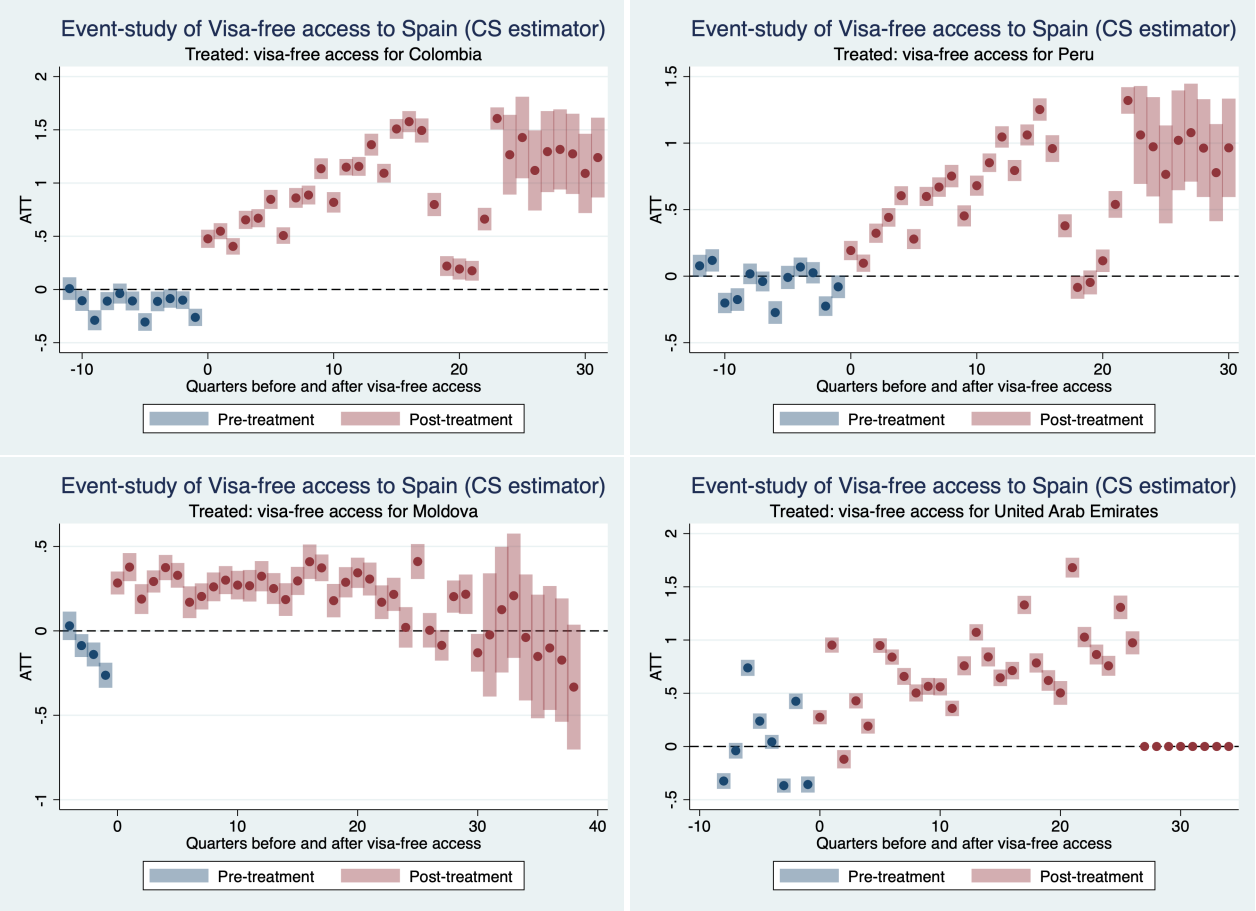
Figure 11: Event Study of the Effect of Visa-Free Access on Quarterly Migration Flows to Spain by Country of Origin (2013-2023) using the estimator from Callaway and Sant'Anna (2021)



Note: representation of ATT's from the estimator of Callaway and Sant'Anna (2021). The dependent variable is the log of gross migration inflows from a country per quarter. 95 per cent confidence intervals computed using clustered standard errors at the country of origin level. Number of observations: 6,866.

treatment inflows cluster around zero but then shoot up as soon as visa-free entry in Spain is allowed for Colombians with respect to other origin countries that continued to require visas, such as Ecuador. The effect continues increasing all the way up to 1.5 log points and then stops and falls down during the Covid period. It recovers afterwards at a very high level. It must be recalled that 1.5 log points correspond to an increase of 348 per cent. The average increase in the post-period can be calculated at 162 per cent.

Figure 12: Event Studies of the Effect of Visa-Free Access on Quarterly Migration Flows to Spain (2013-2023) using the estimator from Callaway and Sant'Anna (2021) for 4 Origin Countries



Note: representation of ATT's from the estimator of Callaway and Sant'Anna (2021). The dependent variable is the log of gross migration inflows from a country per quarter. 95 per cent confidence intervals computed using clustered standard errors at the country of origin level. Number of observations: 6,866.

In the upper right panel of Figure 12, the evolution for Peru is very similar to the one for Colombia, if of a slightly smaller magnitude. Differential inflows also cluster around zero in the pre-period and then increase in the post-period slightly above 1 log point, before falling down to zero again during the Covid period. In the last part of the sample, the size of the difference moves up again to around 1 log point.[17] The average ATT's for Peru stand at

[17]The larger confidence intervals at the end of the sample appear because the number of countries available

0.67, as mentioned above, which would translate into an increase in the inflows of 96 per cent, almost double.

The bottom part of Figure 12 shows the evolution of the ATT's for Moldova and the United Arab Emirates respectively. This is done for completeness and in order to show two cases in which the relative effects are small (Moldova) or large (United Arab Emirates) but the total effects are negligible. Still, the estimator is able to recover meaningful patterns. For Moldova, the pre-period is very short and with a clear downward trend. In the post-period, flows clearly increase, but around only 25 per cent. These increases then go back to zero after Covid. In the case of the United Arab Emirates, flows are very volatile, reflecting its very small size. There seems to be some increasing tendency after the policy change that explains the positive value of its average ATT, but the volatility of the series dominates the graph. For the last years, the EMCR does not report data for this country of origin.

Summing up, what these event studies show is that the absence of a large generic effect of particular policies on migration flows is consistent with large effects on these policies on specific corridors. In particular, the effect of the visa-free access of Colombians and Peruvians to Spain during the period explains why these two countries were among the top emigrant-sending countries to Spain during the Second Immigration Boom.[18]

5 Selection

While the size of migration flows to Spain motivates the paper, it is also relevant to study whether the changes in the size of migration flows is accompanied by changes in the characteristics of arrived immigrants beyond their country of birth, which has already been considered above.

To this end, Table 7 compares the characteristics of immigrants arrived between 1999 and 2008 and immigrants arrived during 2015-2024, two comparable 10-year periods that represent the First and Second Spanish Immigration Boom. The data correspond to the Spanish Labor Force Survey (INE, 2025) and uses the question on how long each of the immigrants has been residing in Spain. Hence, the 1999-2008 column is composed of immigrants who were surveyed in the second quarter of 2008 and answered that they had been living in Spain

in the EMCR is smaller than in the EVR.

[18]These results are robust to the use of other generalized differences-in-differences methods, in particular, synthetic control and synthetic differences-in-differences (Clarke et al., 2024). Results available upon request.

for 10 years or less. Similarly, the 2015-2024 column includes the average characteristics of immigrants who were surveyed in the second quarter of 2024 and answered that they had been living in Spain for 10 years or less.

Table 7: Immigrant Selection during the 1999-2008 and 2015-2024 Immigration Booms

	1999-2008	2015-2024	Difference
Inflows	4,668,685	3,844,207	-824,478
	(47,601)	(57,124)	(87,978)***
Share female	0.502	0.528	0.026
	(0.006)	(0.007)	(0.010)***
Average Age	31.109	32.582	1.473
	(0.167)	(0.263)	(0.312)***
Share of College Graduates	0.168	0.291	0.123
	(0.005)	(0.007)	(0.008)***
Observations	9,383	6,882	

Note: Own elaboration on data from INE (2025) for immigrants living in Spain for less than 10 years in the second quarter of 2008 (1999-2008 column) and 2024 (2015-2024 column). Variables averaged using survey weights.

The first row of Table 7 is useful to compare the size of the two Spanish Immigration Booms in yet another dataset, in this case a survey. The inflows of 4.7 million immigrants between 1999 and 2008 reflect the survey weights applied to a sample size of 9,383 immigrants who arrived in those years and did not come back to their origin countries or decided to move elsewhere. This explains why the numbers are smaller than in the previous section, where we were using data on actual inflows by year without considering further migration decisions of the arrivals. These stayers of the First Boom had an even gender split, were slightly above 31 years old on average, younger than the Spanish native population (Fernández-Huertas Moraga, 2014), and 17 per cent of them had a college degree.

During the Second Boom, the immigrants living in Spain in 2024 who declared having being in the country for at most 10 years were 6,882 in the survey, representing 3,8 million people when using the survey weights. Hence, the total inflow of stayers was more than 800,000 people lower in the Second Boom, although if we took away the Covid years and divided the total inflow by 8 instead of 10, we would obtain a similar average yearly net

inflow.

Regarding selection, Table 7 shows that the share of females was close to 53 per cent in the Second Boom, significantly larger than in the First. Age was also higher by almost 1.5 years, getting closer to 33 years old among immigrants.

However, the most significant change in the composition of the immigrants in both booms had to do with the education level. The share of college graduates among the immigrants of the Second Boom was 29 per cent, 12 percentage points higher than during the First one.

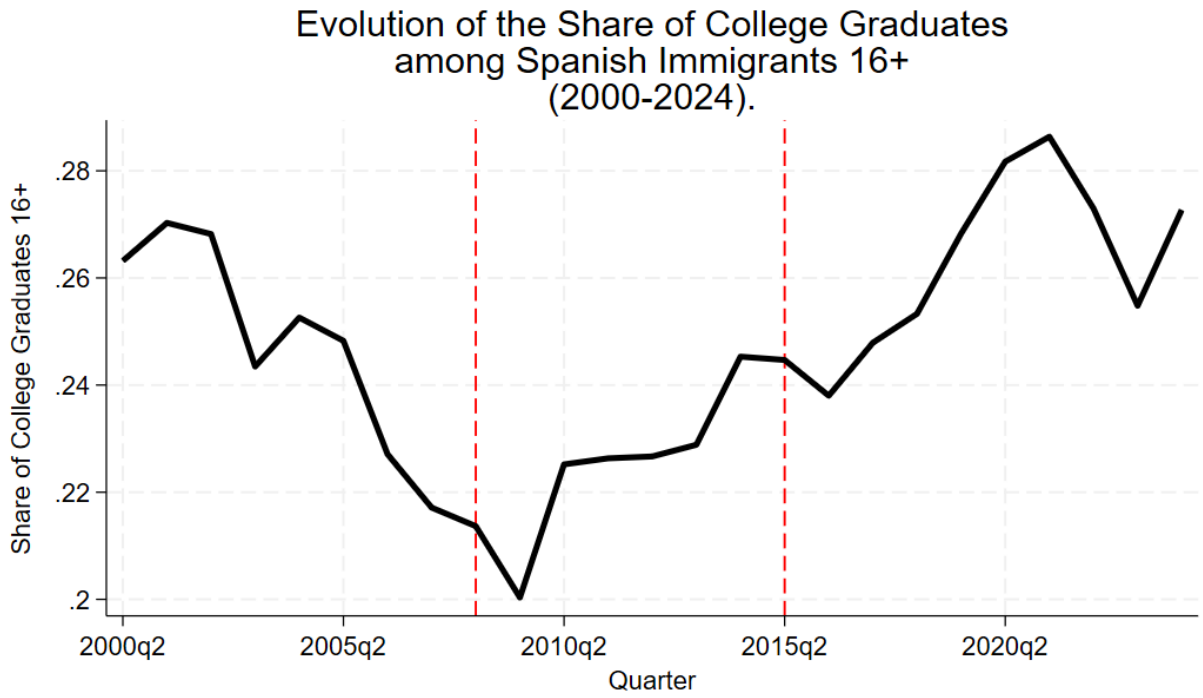
It is typically the case that most selection models will predict a quantity-quality trade-off, with higher migration flows being associated with less selection in productive characteristics such as education (Fernández-Huertas Moraga, 2014). However, the size of the difference in education levels in between both Spanish Immigration Booms is remarkable and deserves further scrutiny.

Figure 13, rather than looking at flows in two different labor surveys, depicts the evolution of the average education level of migration stocks in Spain during the two Immigration Booms. Each observation corresponds to the average education level of all immigrants in the second quarter of each year. Consistently with most selection models, the average education level of international immigrants in Spain went down during the First Immigration Boom, from slightly over 25 per cent of college graduates in 2000, to 20 per cent in 2009. In the recession period, the level of education increased as flows slowed down, including years with negative net flows. By 2015, the average education level of international immigrants in Spain had surpassed the 24 per cent of college graduates in the population older than 16 years old.

What becomes surprising is what happened during the Second Spanish Immigration Boom. Between 2015 and 2021, Figure 13 shows that the share of college graduates increased to a peak above 26 per cent. This more positive selection of the flows could be expected in the Covid years, when immigration flows contracted, but not in the rest of years, where increasing flows coincided with increasing selection. The last 3 years of the series are a bit more volatile. There was the expected decrease in selection between 2022 and 2023, but an unexpected increase in 2024.

These selection patterns could be related to many factors. Firstly, it could be the case that the change in countries of origin documented above tilted Spanish immigration flows towards coming from more educated countries, thus not necessarily challenging classical selection theories. Secondly, it could also be the case that there were changes within individual

Figure 13: Evolution of the Average Share of College Graduates among Immigrants Aged 16 or older in Spain (2000-2024)



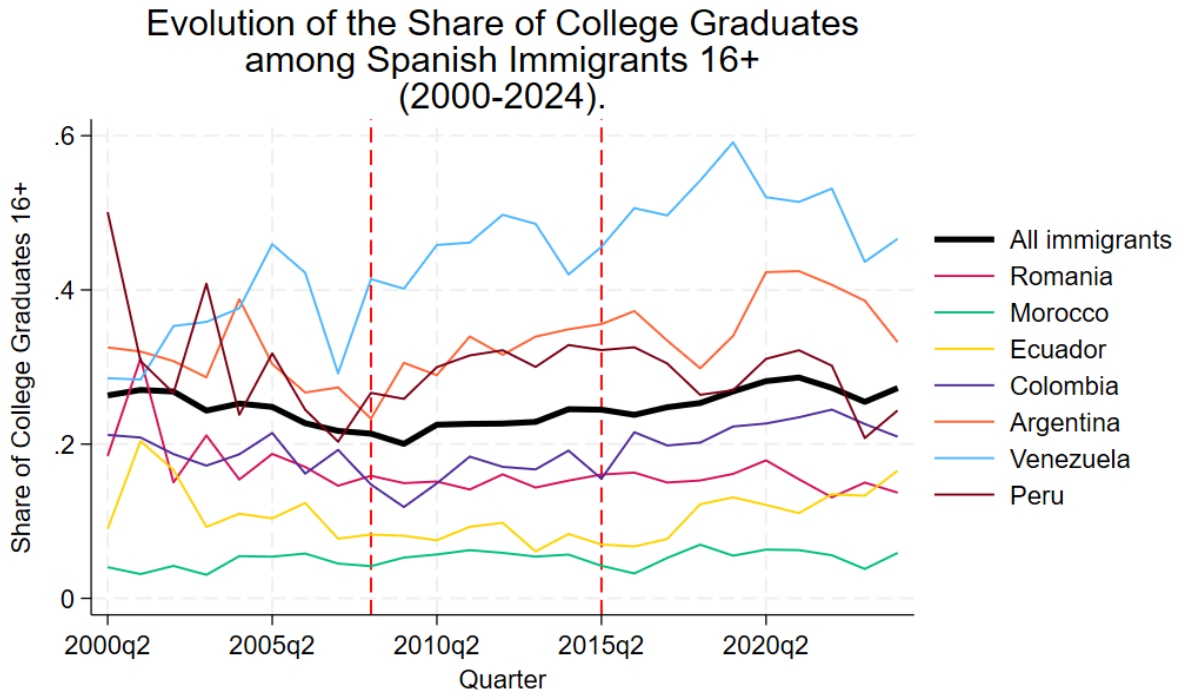
Source: own elaboration on data from INE (2025) for immigrants living in Spain in the second quarter of each year, according to each survey. Share of college graduates averaged using survey weights. The vertical red lines refer to the end of the First Immigration Boom (second quarter of 2008) and the beginning of the Second (second quarter of 2015).

countries of origin, and those changes may or may not be consistent with the theory. Finally, selection patterns could also be related to changes in Spanish policies like the ones described in the previous sections. Next, I briefly address each of the points with the limited data available. Ideally, it would be useful to extend the decomposition and gravity models from the two previous sections to study selection. In practice, as selection patterns can only be observed in a survey, the number of observations decreases very quickly as the analysis starts distinguishing by country of origin, as it will become clear below.

5.1 Education Level by Origin

Figure 14 extends Figure 13 by adding the evolution of the share of college graduates across different countries of origin during the two Immigration Booms. The selection of countries is based on Table 1, with the Top-3 countries in each Boom (Romania, Morocco, Ecuador, Colombia and Venezuela) plus the countries that are in the Top 10 in both Booms (Argentina and Peru). These happened to be the Top-7 immigration countries to Spain in terms of stocks in 2024, totalling 47 per cent of immigration stocks in Spain.

Figure 14: Evolution of the Average Share of College Graduates among Immigrants Aged 16 or older in Spain (2000-2024)



Source: own elaboration on data from INE (2025) for immigrants living in Spain in the second quarter of each year, according to each survey. Each line represents one country of birth. Share of college graduates averaged using survey weights. The vertical red lines refer to the end of the First Immigration Boom (second quarter of 2008) and the beginning of the Second (second quarter of 2015).

Figure 14 first shows how the average education level of immigration stocks in Spain appears much more stable once the y-axis of the figure is expanded with respect to Figure 13.

The patterns described above can still be observed, though. Regarding individual countries, Morocco is the one with the lowest average education level across the main origins, but this education level remained relatively stable across the two booms. In addition, the contribution of Moroccan flows to both booms was quite similar, around 12 per cent. Romania and Ecuador were the other Top-3 countries during the First Immigration Boom. Romanian immigrants were more educated than the average immigrant to Spain, but Ecuadorians appear as the second least educated origin.

Hence, the composition of the Top-3 origin countries across the Booms suggests that the change in countries of origin is partly behind the improved selection of Spanish immigration inflows. In the Second Boom, Colombia and Venezuela substituted Romania and Morocco as main origins. Venezuelans were more educated than Romanians, with both groups above average while Colombians had higher education levels than Ecuadorians, while being both below average.

Figure 14 also features two Top-10 countries that were relevant in both booms: Argentina and Peru. The series are volatile enough, probably due to small sample sizes over the years, to draw many meaningful conclusions, but, if anything, it looks like they follow the general average with slightly higher levels of college graduates.

5.2 Selection Over Time by Origin

The second reason why immigrant selection into Spain may have increased during the Second Spanish Immigration Boom could be related to changes in selection patterns within countries. Figure 14 hints that this is unlikely to be the case, but the next series of tables addresses this issue more directly. These tables reproduce Table 7 for each of the origin countries featured in Figure 14.

Table 8 starts with the immigrants coming from Morocco. As with immigrants overall, the Moroccan inflow was smaller in absolute terms in the Second Spanish Immigration Boom: from about half to a third of a million. The average education level stayed constant across the two Booms, with a 4 per cent of college graduates. This does not mean that other observable characteristics also stayed constant. Moroccans arrived during the Second Boom were 5.5 years younger, with an average age of 23 years old, and 9 percentage points more likely to be female. In fact, the gender balance of Moroccans reversed across the two Booms. Moroccans arriving in 1999-2008 were more likely to be male, while 54 per cent of Moroccans

arriving in 2015-2024 were women.

Table 8: Immigrant Selection from Morocco

	1999-2008	2015-2024	Difference
Inflows	515,655	335,308	-180,347
	(16,240)	(14,768)	(25,728)***
Share female	0.443	0.535	0.092
	(0.018)	(0.022)	(0.028)***
Average Age	28.525	23.050	-5.476
	(0.417)	(0.712)	(0.826)***
Share of College Graduates	0.042	0.039	-0.003
	(0.007)	(0.009)	(0.012)
Observations	1,167	754	

Note: Own elaboration on data from INE (2025) for Moroccans living in Spain for less than 10 years in the second quarter of 2008 (1999-2008 column) and 2024 (2015-2024 column). Variables averaged using survey weights.

Next, Table 9 repeats the same exercise for immigrants coming from Colombia. First, it can be seen that Colombian immigration was notably larger during the Second Boom than during the First. It must be recalled that Colombians lost their visa-free access to Spain in 2001 (Bertoli and Fernández-Huertas Moraga, 2013), at the beginning of the First Boom, and only recovered it at the end of 2015. In terms of education, Colombian immigrants during the Second Boom are 4 percentage points more likely to hold a college degree, with an average of 17 per cent, but the difference is only marginally signficant. There are no significant differences between the two Booms in terms of age and gender, although the point estimates show a lower share of women within a still female dominated flow (55 per cent in the Second Boom) and a lower average age at 32 years old.

Table 10 follows with the characteristics of Venezuelan immigrants to Spain across both booms. Venezuelans were the third country of origin for Spanish immigrants in 2024, but most of them, over half a million, arrived during the Second Boom, and so there are only 135 observations for the First Boom. As a result, it becomes difficult to observe statistically significant differences between the Booms, although the increase in average age is so large that it becomes statistically significant. Venezuelans arrived during the Second Immigration

Table 9: Immigrant Selection from Colombia

	1999-2008	2015-2024	Difference
Inflows	372,805	553,724	180,920
	(13,110)	(20,352)	(29,127)***
Share female	0.584	0.549	-0.036
	(0.021)	(0.022)	(0.031)
Average Age	32.651	32.197	-0.454
	(0.527)	(0.705)	(0.880)
Share of College Graduates	0.125	0.167	0.041
	(0.015)	(0.017)	(0.023)*
Observations	810	765	

Note: Own elaboration on data from INE (2025) for Colombians living in Spain for less than 10 years in the second quarter of 2008 (1999-2008 column) and 2024 (2015-2024 column). Variables averaged using survey weights.

Boom and treated as de facto refugees by the Spanish government were 7 years older than during the first, with an average age of 36 years old. They were also predominantly female, 52 per cent in the Second Boom, and highly educated, almost reaching 40 per cent of college graduates. This pattern of high selection levels for particular refugee groups was already advanced by Borjas (1987), who coined the term refugee sorting to refer to this anomalous prediction of the Roy model.

In Table 11, the characteristics of immigrants from Romania, the fourth largest origin country for immigrants to Spain, during the two Booms are shown. The general picture is the mirror image of the Venezuelans. Inflows were much larger during the First Boom: from almost 700,000 immigrants to less than 100,000. The Second Boom's immigrants were significantly younger, almost 8 years so, with an average age of 22 years old. In terms of education, the point estimate signals a decline up to 12 per cent, but it is not statistically significant. Similarly to Venezuelans, Romanians are also predominantly women, with a share of 54 per cent that is not statistically different from the 52 per cent of the First Boom.

Table 12 moves to Ecuadorians immigrants, also among the top emigrant senders from the First Spanish Immigration Boom. This is reflected in the table. Only the size of the inflow is significantly different, although the share of college graduates is marginally larger

Table 10: Immigrant Selection from Venezuela

	1999-2008	2015-2024	Difference
Inflows	61,285	534,526	473,241
	(5,905)	(17,893)	(20,820)***
Share female	0.537	0.522	-0.015
	(0.051)	(0.024)	(0.056)
Average Age	29.150	36.182	7.032
	(1.110)	(0.847)	(1.396)***
Share of College Graduates	0.329	0.396	0.068
	(0.051)	(0.023)	(0.056)
Observations	135	701	

Note: Own elaboration on data from INE (2025) for Venezuelans living in Spain for less than 10 years in the second quarter of 2008 (1999-2008 column) and 2024 (2015-2024 column). Variables averaged using survey weights.

Table 11: Immigrant Selection from Romania

	1999-2008	2015-2024	Difference
Inflows	685,515	86,087	-599,428
	(15,737)	(7,923)	(19,511)***
Share female	0.522	0.543	0.022
	(0.017)	(0.037)	(0.040)
Average Age	29.915	22.143	-7.772
	(0.353)	(1.447)	(1.490)***
Share of College Graduates	0.143	0.117	-0.026
	(0.013)	(0.026)	(0.029)
Observations	1,415	266	

Note: Own elaboration on data from INE (2025) for Romanians living in Spain for less than 10 years in the second quarter of 2008 (1999-2008 column) and 2024 (2015-2024 column). Variables averaged using survey weights.

for Ecuadorians arrived during the Second Boom by 5.5 percentage points, reaching more than 12 per cent college graduates among them. The age is similar across booms, at 31

years in the Second one, and this is another flow with a higher share of women than men in both Booms, at 53 per cent in the Second, although the share of women in both cases is not significantly larger than the share of men.

Table 12: Immigrant Selection from Ecuador

	1999-2008	2015-2024	Difference
Inflows	645,920	97,198	-548,721
	(14,172)	(9,256)	(19,464)***
Share female	0.506	0.528	0.023
	(0.017)	(0.048)	(0.051)
Average Age	30.351	31.385	1.034
	(0.380)	(1.622)	(1.666)
Share of College Graduates	0.068	0.123	0.055
	(0.008)	(0.030)	(0.031)*
Observations	1,200	161	

Note: Own elaboration on data from INE (2025) for Ecuadorians living in Spain for less than 10 years in the second quarter of 2008 (1999-2008 column) and 2024 (2015-2024 column). Variables averaged using survey weights.

Table 13 continues with the characteristics of immigrants from Argentina. Again, the only significant difference between the two booms is the size of the inflows, larger in the First than in the Second in this case. The low number of observations makes it difficult to draw significant conclusions, although the point estimates signal mostly masculine inflows with an increasing average age, close to 35 years old during the Second Boom, and also slightly increasing education levels, coming close to 23 per cent in the Second Boom.

Finally, Table 14 presents the characteristics of Peruvian immigrants arrived in Spain during the two Immigration Booms. In this case, The size of the inflows was larger during the Second Boom, again for a country where the bilateral visa policy allowed for free entry during the Second Boom but not during the First. The only other significant difference is the increase of the share of women in the inflow by almost 14 percentage points, reaching almost 60 per cent of the arrivals during the Second Boom. The average age remained constant above 33 years old and the average education level decreased by 6 percentage points from the First to the Second Boom, as the theory would predict, but this decrease is not statistically

Table 13: Immigrant Selection from Argentina

	1999-2008	2015-2024	Difference
Inflows	220,320	155,824	-64,497
	(9,343)	(11,840)	(18,465)***
Share female	0.464	0.442	-0.022
	(0.029)	(0.042)	(0.051)
Average Age	33.291	34.976	1.684
	(0.771)	(1.399)	(1.597)
Share of College Graduates	0.202	0.226	0.024
	(0.025)	(0.035)	(0.043)
Observations	414	192	

Note: Own elaboration on data from INE (2025) for Argentinians living in Spain for less than 10 years in the second quarter of 2008 (1999-2008 column) and 2024 (2015-2024 column). Variables averaged using survey weights.

significant.

Table 14: Immigrant Selection from Peru

	1999-2008	2015-2024	Difference
Inflows	122,211	209,831	87,621
	(8,529)	(11,590)	(17,484)***
Share female	0.456	0.595	0.139
	(0.041)	(0.034)	(0.053)***
Average Age	33.305	33.142	-0.163
	(0.970)	(1.286)	(1.610)
Share of College Graduates	0.253	0.191	-0.062
	(0.035)	(0.028)	(0.045)
Observations	223	298	

Note: Own elaboration on data from INE (2025) for Peruvians living in Spain for less than 10 years in the second quarter of 2008 (1999-2008 column) and 2024 (2015-2024 column). Variables averaged using survey weights.

All in all, the conclusion from these seven tables, as advanced at the end of the previous subsection, is that there do not seem to be grounds to attribute the improvement in the selection of immigrants to Spain to changes in the selection patterns within individual countries. Immigrants from Ecuador and Colombia marginally improved their education levels over time, but that is not enough to explain the general increase of 12 percentage points reflected in Table 7.

5.3 Selection and Bilateral Policies

To conclude this section, the same table format is employed to analyze the selection patterns of immigrants in Spain around the policy changes emphasized in the previous section. Only the simple difference is shown as suggestive evidence of the selection effects of the policy because there is no power to run a double difference specification with a control group. One could argue there is too little power even for the simple difference.

First, Table 15 shows the characteristics of Colombian immigrants arrived before the change in the bilateral visa policy in December 2015 that allowed Colombians to enter Spain without a travel visa. The observations come from the labor force survey of the first quarter of 2020 (to avoid the Covid effects) and 2016 and refer to Colombians who entered Spain over the four previous years and did not leave. The only significant difference in the Table corresponds to the inflows variable, which increased by more than 100,000 over this 4-year period, multiplying almost by 6 with respect to the previous 4 years. Despite this huge increase, there are not statistically significant selection patterns in terms of gender, age or education.

Secondly, Table 16 repeats the exercise for Peru, whose visa policy with Spain was also modified in March 2016 to allow for the visa-free entry of Peruvians in Spain. Given the smaller size of Peruvians inflows into Spain, the sample size for this comparison is just 32 observations before the policy and 62 after it. The period is the same as for the Colombian case with the objective of maintaining symmetric periods across the policy change, but avoiding potential contamination effects from the Covid period. Again, only the inflows are significantly different, with flows more than doubling after the policy change. There is a huge decrease in the average education level after the policy, reaching almost 18 percentage points in the share of college graduates, but not even this huge change is statistically significant for the available sample sizes.

Table 15: Immigrant Selection from Colombia before and after the travel visa policy change

	2012-2016	2016-2020	Difference
Inflows	21,293	126,105	104,812
	(3,348)	(6,161)	(8,181)***
Share female	0.597	0.595	-0.002
	(0.079)	(0.037)	(0.087)
Average Age	29.972	32.434	2.462
	(2.527)	(0.995)	(2.716)
Share of College Graduates	0.231	0.263	0.031
	(0.070)	(0.035)	(0.078)
Observations	51	252	

Note: Own elaboration on data from INE (2025) for Colombians living in Spain for less than 5 years in the first quarter of 2016 (2012-2016 column) and 2020 (2016-2020 column). Variables averaged using survey weights.

Table 16: Immigrant Selection from Peru before and after the travel visa policy change

	2012-2016	2016-2020	Difference
Inflows	12,067	29,790	17,724
	(2,288)	(3,546)	(5,053)***
Share female	0.646	0.736	0.090
	(0.096)	(0.065)	(0.116)
Average Age	31.785	31.960	0.175
	(4.663)	(2.634)	(5.355)
Share of College Graduates	0.388	0.210	-0.178
	(0.101)	(0.066)	(0.121)
Observations	32	62	

Note: Own elaboration on data from INE (2025) for Peruvians living in Spain for less than 5 years in the first quarter of 2016 (2012-2016 column) and 2020 (2016-2020 column). Variables averaged using survey weights.

Moving beyond visa policy changes, Table 17 refers to the change in asylum conditions for Venezuelans in Spain in February 2019. Since the change is so close to the Covid pe-

riod, no effort is made to separate the sample from it and the comparison is made between Venezuelans arrived between 2019 and 2024 and Venezuelans arrived between 2014 and 2019.

Table 17: Immigrant Selection from Venezuela before and after the asylum provision change

	2014-2019	2019-2024	Difference
Inflows	124,906	366,664	241,758
	(7,911)	(15,270)	(20,442)***
Share female	0.492	0.553	0.061
	(0.036)	(0.027)	(0.045)
Average Age	33.069	33.722	0.652
	(1.187)	(0.925)	(1.505)
Share of College Graduates	0.507	0.364	-0.144
	(0.036)	(0.027)	(0.045)***
Observations	257	494	

Note: Own elaboration on data from INE (2025) for Venezuelans living in Spain for less than 6 years in the first quarter of 2019 (2014-2019 column) and 2024 (2019-2024 column). Variables averaged using survey weights.

In this case, given the larger sample size, there are visible and significant changes in selection. The size of the inflows almost triples between the two 5-year periods. This cannot be attributed to the policy, but it is still remarkable. Consistently with classical selection theories, the average share of college graduates among Venezuelan refugees in Spain drops by more than 14 points, from 51 per cent before 2019 to 36 per cent between 2019 and 2024.

Finally, Table 18 concentrates on the characteristics of Ukrainian immigrants before and after the start of the February 2022 Russian invasion and subsequent war. After the war started, Spain and other European countries offered Ukrainian asylum seekers a temporary protected status mostly equivalent to being a formal refugee. This is done for completeness because the sample sizes are just too small to draw any meaningful conclusions. The Spanish labor force survey only interviewed 10 Ukrainians arrived in the two years that preceded the conflict and only 66 in the following two years. The increase in the inflows is picked up in the survey, although the numbers are much smaller than those found in administrative sources. Regarding other characteristics of Ukrainians in Spain, only an increase in average age is marginally significant. Most of the Ukrainians identified in the survey are women, 75

per cent before and 72 per cent after, but there is not the expected increase in the share of females as a consequence of the war in this dataset.

Table 18: Immigrant Selection from Ukraine before and after the asylum provision change

	2019-2021	2021-2023	Difference
Inflows	7,500	47,670	40,170
	(2,957)	(3,520)	(5,538)***
Share female	0.754	0.719	-0.035
	(0.182)	(0.060)	(0.191)
Average Age	27.365	34.995	7.630
	(2.525)	(3.162)	(4.046)*
Share of College Graduates	0.284	0.295	0.011
	(0.193)	(0.062)	(0.202)
Observations	10	66	

Note: Own elaboration on data from INE (2025) for Ukrainians living in Spain for less than 3 years in the fourth quarter of 2021 (2014-2019 column) and 2023 (2019-2024 column). Variables averaged using survey weights.

From the analysis of the selection patterns before and after the bilateral policy changes, the only element that emerges is the worsening of the educational level of Venezuelans after 2019, which would be consistent with classic selection theories. More generally, the conclusion stands that the evolution of selection during the Second Spanish Immigration Boom is more related to the mix of countries of origin than to variations within countries of origin.

6 Conclusions

For the second time in the XXIst century, Spain attracted many international immigrants between 2015 and 2024, much above its economic potential. This paper explores the factors behind this boom, both in comparison with other destinations and across time between the two Spanish booms.

Methodologically, I exploit different versions of the gravity model to extract information from the origin-destination-time structure of the data on international migration flows. There are three main results in the paper.

First, destination-country factors mattered in Spain more than in other OECD destinations, where migration flows can be explained to a larger extent by origin-factors such as demographic growth in the countries of origin of the immigrants. With a rough back of the envelope calculation,[19] if I take the almost 3 million net arrivals to Spain in 2015-2024 from Table 1, 1.1 million can be attributed to origin-specific factors and 1.7 million to destination factors, based on the decomposition of Table 3. Further taking the correlations from Table 5 seriously, 1.6 million can be attributed to the evolution of the Spanish economy and to general Spanish migration policies jointly.

Second, while visa policies had a smaller average role than during the First Boom, the two most significant policy changes in the Second Boom, namely the visa-free access of Colombian and Peruvian immigrants to Spain since 2015 and 2016 respectively, had a substantial impact on immigration flows from these countries, as calculated from different event study methodologies. Specifically, inflows of Colombians would have been 2.6 times lower in the absence of the policy, while inflows of Peruvians would have been 2 times lower. Applying these numbers computed on log inflows to the net flows of Colombians and Peruvians from Table 1, it could be said that inflows to Spain would have been lower by 360,000 fewer immigrants in the absence of these two measures, which amounts to 12 per cent of net arrivals.

Third, the average education level of immigrants in Spain improved during the Second Spanish Immigration Boom. This change can be attributed to changes in the composition of immigration flows by country of origin, namely the fact that Venezuelan and Colombians were more educated on average than Romanians and Ecuadorians. However, it is difficult to ascribe this to particular immigration policies. It is true that visa-free access to Spain was closed for Ecuadorians in 2003 and opened for Colombians in 2015, but the increase in arrivals of Venezuelans and the decrease in arrivals of Romanians are hard to square with Spanish policies.

Aside from the main results, two asylum-related inflows also had a large impact on the Second Spanish Immigration Boom: those coming from Venezuela and Ukraine. As seen in the lower left panel of Figure 8, Venezuelan inflows continually increased in the period 2013-2023, with the parentheses of Covid, but their growth does not seem to be related to any Spanish policy decision. In the case of Ukrainian inflows, the lower right panel of Figure

[19] It is both rough and wrong, because the contributions were calculated on log gross flows and are applied to net flows in levels, but it is useful to have an idea of the magnitude of the results.

8 already showed that their spike was both caused by the start of the Russian invasion in February 2022 and by the asylum provisions of Spain and the European Union shortly after. Going back to back of the envelope calculations, in a counterfactual world with no conflict in Ukraine, fixing the stock of Ukrainians in Spain in 2020, and with Venezuelan inflows at their level during the First Spanish Immigration Boom, net flows to Spain would have been lower by 456,000 immigrants, 15 per cent of the overall increase in 2015-2024.

For future work, it would be interesting to understand better the factors that underpin the larger role of destination factors in Spain with respect to other countries. On the other hand, the changing composition of the inflows by country of origin ends up determining the average educational level of the inflows and should also be considered by new research on this topic.

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A Appendix

A.1 GDP sources for Table 6

The GDP series are mostly taken from International Monetary Fund (2025b) and International Monetary Fund (2025a). The rest of the sources for particular countries were:

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