



Abstract ampliado

RESUMEN AMPLIADO

Título: Cultural diversity and economic activity. The remarkable case of Spain

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Departamento:

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Área Temática: S04 – Spatial flows toward an empty Spain and a full Spain

Resumen: (*mínimo 1500 palabras*)

During last years, motivated by the recent political and economic developments, migration has suffered important changes: this has become more global, massive and heterogeneous in terms of origin and destination countries (Arango et al. 2009). Transnational movements of people have been particularly important in developed economies. According to OECD (2018)¹, in 2017, the OECD countries received more than 5 million of migrants, and although this represented a slight reduction with respect to the previous year, it still exceeds the values of 2015 after several years of continuous growth.

The countries of Southern Europe (SE) have not been apart from this reality. Historically, SE countries and, in concrete, Spain, Portugal and Italy have suffered significant waves

¹ International Migration Outlook, OECD (2018).



of emigration. The traditional destinations of these migrants has been both the European continental economies (mainly Germany, France, Belgium and Switzerland), and transoceanic countries, especially those interrelated by a past of colonialization (Anthias and Lazaridis, 2018). However, in recent times, these economies have experienced an unprecedented historical reversal process in terms of migratory flows, moving themselves from being a net source of migrants to a net recipient. The particular geographical location of these economies has turned them into the “entrance hall” to Europe. Moreover, the flexibility of their labor markets, with a great demand in agriculture (harvesting strawberries, oranges, grapes, olives, etc.), tourism, construction sector and domestic service have fostered this phenomenon.

Among these countries, the case of Spain requires especial attention. Despite being a net recipient of immigrants for such a short period², the volume of entries in Spain has been extraordinary, leading to deep social, economic and cultural change. Throughout the first decade of the twenty-first century (coinciding with the Spanish economic “boom”), this economy suffered one of the largest waves of migration in Europe, becoming in 2007 in the Europe’s main target for immigrants. In 2017, (even after the financial crisis and the consequently reduction in the entry of foreigners suffered during this period) Spain still represented the fourth European country in number of immigrants, with a total population of migrants of nearly six million and a percentage of immigrants in the total population exceeding 12% (Delgado Gómez-Flors and Alguacil, 2018). This process left far away, in terms of figures, a period of decades of continuous exodus of Spanish people towards the countries of Latin America, first, and to the Central European economies, afterwards (Alamá et al. 2014). Understanding the consequences of this massive immigration on the Spanish economy is precisely the concern of this paper.

The quantitative growth of migration in Spain has led to another important stylized fact: the rise of the diversity of nationalities. As can be seen in Figure 1, which depicts the fractionalization index,³ the birthplace diversity in Spain has augmented sharply from the beginning of this century, with a slight decrease in the last two years of our sample. This

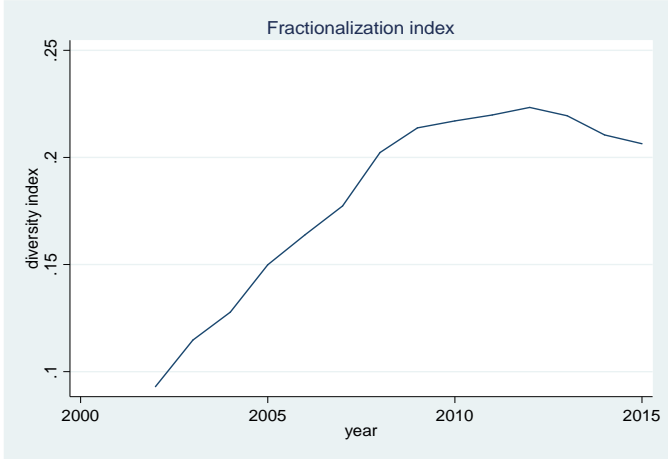
² It was not until the 21st Century that the stock of foreigners residing in Spain exceeded Spanish nationals living elsewhere in the world (Alamá et al., 2014).

³ The fractionalization index is a Herfindahl Index that measures the probability that two migrants, randomly selected from the population of a specific host province, were born in different countries. For a detailed description of the index, see Section 2.



has meant an increasingly heterogeneity of population, with a different distribution across the Spanish provinces, and with social and economic consequences that are still uncertain.⁴

Figure 1. The province average of the fractionalization index (birthplace diversity within the group of foreigners). 2002-2015.



Source: Authors' own elaboration based on INE data.

In this paper, we aim to investigate the influence of this higher cultural diversity on real per capital GDP. To do that, we use panel data at a province level (NUTS-3) for the period 2002 to 2015. The motivation for this study stems from the on-going debate concerned on the effects that international migration has on destination countries. The increasing fear about the economic consequences of massive immigration flows and the absence of a coherent migration policy have led to a growing social and political tension, that cannot always find a clear answer from the academia. Nonetheless, the lack of a coherent migration policy and the appearance of xenophobic positions and extremist political parties in Europe make urgent a complete response to this debate based on experience and scientific rigor.

Questions such as whether immigrant harm or improve the opportunities of native workers or how it affects the economic performance of host countries have been empirically analyzed in depth with unclear, and sometimes contradictory results. For instance, through the estimation of a pseudo-gravity model on 14 OECD countries, Ortega and Peri (2009) assert that immigration increases employment and capital stock in host countries but does not affect their income per capita. On the other hand, Boubtane et al.

⁴ In Section 3, we show the Fractionalization index across the Spanish provinces.



(2013), focusing also on a group of OECD countries, show a bidirectional relationship between immigration flows and host country GDP per capita and a negative bidirectional relationship between immigration and host country total employment. According to Morley (2006), for the case of Australia, Canada and USA, a long run causality from GDP per capita to immigration exists but not the other way around. Zorlu and Hartog (2005) find very small effects on native' wages on Netherland, United Kingdom and Norway. Similarly, Ottaviano and Peri (2012) reveal that immigration in US had a small positive effect on average native wages. For Dustmann and Frattini (2014), immigration in UK depresses wages in the lower part of the wage distribution but leads to slight wage increases in the upper part. Finally, focusing on 20 selected OECD member states, Burzynski et al. (2018) conclude that the economic benefits from immigration varies considerably across countries and skill groups.

The previous works however leave in the background the analysis of the potential positive spillovers that stems from a greater heterogeneity of population related to this migration. Probably encouraged by a higher availability of data and a broader view of this phenomenon, a growing area of research has emerged recently incorporating this fact to the debate concerning to the economic implications of a greater of migration(see Alesina and La Ferrara, 2005; and Alesina et al., 2016 for a survey). This literature highlights several theoretically channels through which birthplace diversity may affect output. According to Hong and Page (2004), for instance, the diversity of human capital increases creativity and helps member to solve problems and generate new ideas. Similarly, Suedekum et al. (2014) state that cultural heterogeneity in regions may facilitate knowledge spillovers derived from the interaction of people with different backgrounds that would have not developed in culturally homogenous environments. For Rapoport (2018), people born in different countries complement each other in the labor market improving thus the production process and the overall performance of the economy.

Yet, the evidence on this matter remains quite ambiguous, at least from a macroeconomic point of view. Many empirical papers at regional/country level identify a clear positive impact of cultural diversity on economic development of the host market. Most of them focus on the United States economy. The seminal paper on this matter is Ottaviano and Peri (2006). By using panel data from different American Metropolitan Statistical Areas (MSAs), these authors confirmed the positive impact of immigration on the average wage



of U.S.-born workers overall, both in the short run and in the long run.⁵ Other works that find that immigrant diversity improve the economic development of this country are Sparber (2010), Ager and Brückner (2013), Kemeny and Cooke (2017), Docquier et al. (2018) and Rodríguez-Pose and von Berlepsch (2018). Similar results are obtained when other developed economies have been considered, as shown by Suedekum et al. (2014), for the case of Germany, by Delgado Gómez-Flors and Alguacil (2018) for the Spanish regions or by Alesina et al. (2016), for a set of OECD countries. According to Bove and Elia (2017), the positive effect of cultural diversity is even more consistent in developing countries than in developed ones.

On the contrary, other studies (most of them centered in undeveloped countries, but not only) reveal a negative or a non-significant relationship between cultural diversity and the economic performance of the host regions, showing thus the relationship between natives and foreigners more as of a substitution than of a complementary nature. Most of these works contemplate cultural diversity as a factor of social destabilization and poor economic behavior, identifying in many cases cultural diversity with social polarization. Authors like Easterly and Levine (1997) and Collier and Gunning (1999) point out the ethno linguistic fractionalization as a main reason of the Africa's poor performance. For Montalvo and Reynal-Querol (2005), who analyze a sample set of developing countries, a rise in social polarization has a negative impact on growth because it reduces the rate of investment and increases public consumption and the incidence of civil wars. In this line, Churchill and Smyth (2017) find that ethnic and linguistic fractionalization contributes to increase poverty levels. Focusing on a developed country, Longhi (2013) shows that the positive correlation between diversity in English Local Authority Districts and worker's wages found in cross-sections disappears when we consider panel estimations.

Nonetheless, many of previous works that analyze the economic impact of a higher population heterogeneity do not take into account what for Alesina and La Ferrara (2005), among others, is crucial in the study of the effects of cultural diversity: the endogeneity problem. If it is true that diversity may affect local economic performance, it also likely that economic prosperity itself attracts more immigrants from a wider range of

⁵ This positive effect results from averaging a positive impact on wages of skilled U.S.-born workers and a small negative effect on wages of unskilled U.S.-born workers (see Ottaviano and Peri, 2006).



nationalities. The related literature has addressed this problem of reverse causality following diverse strategies. Many studies solve this issue using instrumental variables (IV) techniques based on predicted immigrant stocks; namely the shift-share methodology, where the population heterogeneity at a regional level is compared to the population composition at national level (Card, 2001). This is the case, for instance, of Ottaviano and Peri (2006), Bove and Elia (2017), Bakens et al. (2013), Ager and Brückner (2013), Suedekum et al. (2014), Gagliardi (2015), Kemeny and Cooke (2017), Delgado Gómez-Flors and Alguacil (2018), and Rodríguez-Pose and von Berlepsch (2018). Our paper is closely related to this last strand of the literature. To tackle the endogeneity or reverse causality problem, we rely on the hypothesis that highly diverse provinces during the initial period remain attractive to incoming immigrants in the following years. We also suppose that immigrants at the beginning of the period does not predict the future evolution of income better than local population. This entails to assume that migrant inflows in a given period are not affected by omitted variables that will influence province economic behavior in the future (see Saiz, 2007; Rodríguez-Pose and von Berlepsch, 2018, for more detail). Another potential problem that we should face when dealing with local indicators refers to the spatial dependence between regions. Provinces are units of an observation, which far from constituting separate compartments, are probably spatially related. According to Anselin (1988), the presence of spatial effects may lead to serious bias and/or inefficiency in the estimates of the coefficients. In this sense, spatial models may facilitate consideration of neighborhood spillovers and enhance the reliability of the empirical work (Artelaris and Petrakos, 2016). As far as we know, the only work that has taken into account this spatial connection when analysis the consequences of a higher heterogeneity of population is the one by Suedekum et al. (2014). They estimate the effect that diversity has on native's wages at a local level in Germany assuming a spatial correlation in the error terms. In this paper, we perform instead spatial autoregressive model (SAR) to control for the correlation across provinces of the dependent variable.



and with a higher rate of investment and human capital are those with a better economic behavior. In addition, as in previous works, the estimates show a negative relationship between the economic activity and the total share of foreign population of provinces. This result however fades when we split total foreign population in several samples according to the level of income of the source country. In this case, we obtain that a higher proportion of foreign population coming from countries with a low-middle or upper-middle income will positively affect the economic performance of regions. On the contrary, we do not find any significant impact when immigrants coming from countries with high-income level are considered. This result would be in accordance with the dual structure of the foreign population in Spain reflecting the fact that a large proportion of immigrants coming from highly developed countries are permanent tourists who do not participate actively in the productive process and whose role in the economic development is uncertain. This would contrast with a foreign population from countries with lower levels of development whose main purpose when migrating to Spain is to work. The obtained outcomes are robust to the unobserved regional heterogeneity, potential reverse causality and the presence of spatial linkages among nearby provinces.

Palabras Clave: migration, cultural diversity, provincial development, spatial correlation, Spain.

Clasificación JEL: F63, J61, C26, O4, R23

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