

# Clusters in foreign-born vs. native self-employment in Europe: Do we look alike?

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## Abstract

In this paper, we analyse the existence of clusters in self-employment rates, segregating by place of birth, i.e. native vs foreign-born, in a group of 17 European countries. The analysis suggests that natives behave differently in peripheral and core countries, whereas their foreign-born self-employed counterparts show a similar behaviour irrespective of the characteristics of the recipient economy. These findings augment the scant available evidence about this topic in Europe (as most previous studies have focused on the United States) and confirm the existence of important differences in the entrepreneurial skills and mindset of native and migrant populations.

**JEL codes:** F20, F22, L26

**Keywords:** Self-employment, entrepreneurship, migration, Europe, cluster analysis

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# 1. Introduction

The promotion of entrepreneurship has been seen as an important driver of economic growth, job creation and higher market competition due to an increase in the number of businesses (see Thurik, 2009; Cuadros et al. 2021, and Faria et al., 2020, among many others). Thurik (2003) raises the problem of unemployment in those countries where the transition from a managed to an entrepreneurial economy does not take place at the desired pace. Self-employment (SE) is typically taken to be a strong indicator of entrepreneurial activity (Dawson, 2014). From the policy side, the European Commission has created a series of institutions and projects, such as the European Progress Microfinance Facility, the Employment and Social Innovation Programme and the European Social Fund, to promote SE. The implementation and effectiveness of those initiatives are expected to be heterogeneous as SE rates vary across countries (depending on their socioeconomic and cultural features) as well as across different types of individuals (foreign-born versus native).

In this paper, we analyse how (dis)similar the SE rates are among a pool of European countries, distinguishing whether the self-employed individuals are native or foreign-born. To the best of our knowledge, only Cuadros et al. (2021) have analysed convergence in SE rates (by using unit root analysis for panels) in order to examine whether the SE rates converge to an average for both native and foreign-born self-employed populations. This study shows that the SE rates for migrants behave more similarly than those for natives. However, this approach does not allow us to see whether there is convergence among groups of countries. Such a finding would make a useful contribution to a better design of EU-wide policies targeted at enhancing SE across Europe. Hence, in this paper, we go a step further by analysing whether there are patterns in SE rates for both native and foreign-born self-employed people, and if similarities between countries can be found, which would allow us to group them into clusters of convergence.<sup>1</sup> The main motivation for this analysis lies in the controversy regarding the existence of differences in the propensity for SE between migrants and natives. Foreign-born individuals may face potential obstacles to joining their host countries' labour markets that make them more likely than natives to enter SE. For example, informational asymmetries (natives are likely to have more information), skill-mismatch relative to the local jobs, or limited work permits. Borjas (1986) suggests that, in the US, foreigners seem to be more active when it comes to entrepreneurship rates than natives. This evidence has been recently confirmed by Klaesson and Öner (2021) and Pekkala and Kerr (2016a, b). However, it is clearly not the case in Europe, where migrants are less likely than natives to be self-employed (see Naudé et al., 2017, and Kahanec and Guzi, 2017). Recently, Alden et al. (2021) have confirmed this evidence for Sweden and highlight that attitudes toward SE differ dramatically between natives and foreign-born individuals. Moreover, Almeida et al. (2021) show the geographical nature of SE, which is affected by both national and regional elements. Therefore, the distinctive features of SE for different individuals in Europe (Saridakis et al., 2019), as well as the existence of significant differences in SE across Europe, highlight the importance of augmenting the scarce available evidence about this topic in the European context.

Our findings show that, whereas natives behave differently in peripheral and core countries, their foreign-born self-employed counterparts seem to behave similarly across different recipient countries<sup>2</sup>. These outcomes support previous findings reported by Cuadros et al. (2021) and indicate that the economic context of the receiving country seems to exert a stronger influence on natives than

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<sup>1</sup> A cluster is a group of observations with similar characteristics. Thus, they hold a high degree of both internal homogeneity (inside cluster) and external heterogeneity (among clusters).

<sup>2</sup> In our analysis, we denote as "peripheral" countries the Mediterranean ones (Cyprus, Greece, Portugal and Spain) plus Ireland, while the "core" countries refer to the remaining ones.

on migrants. Thus, local conditions cannot be the only explanation of SE rates in the case of the migrant population, as the foreign-born population shows common entrepreneurial behaviour in very different recipient countries.

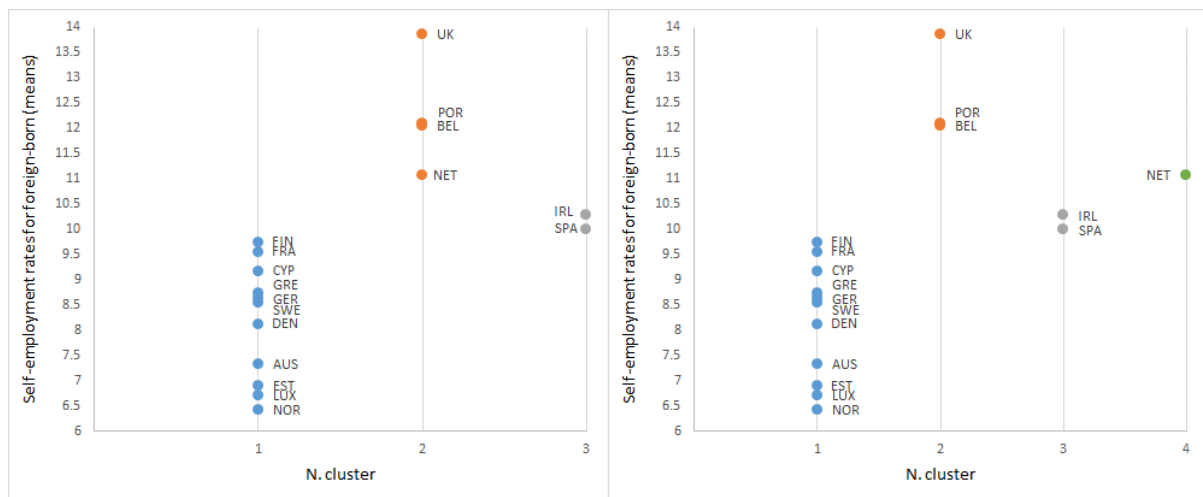
The remainder of the paper is organised as follows. The next section explains the empirical analysis and discusses the main results. The last section concludes.

## 2. Empirical analysis

We apply a hierarchical cluster procedure using the SPSS software version 26 to analyse how (dis)similar the SE rates are when segregating by place of birth, i.e. native vs. foreign-born. The data for the empirical analysis consist of a series of the number of self-employed people per country, both native and foreign-born, over the active population of both groups for the age group 15–64 years. The data come from *Eurostat* (code *lfsa\_esgacob*) in annual frequency from 1999 until 2018 for 17 European countries: Austria, Belgium, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, and the United Kingdom. The selection of these countries is based on data availability.

To obtain the clusters, we use the Euclidean distance and apply the centroid method as the hierarchical grouping technique. Hence, the distance between two clusters is defined as the difference between their centroids. One decision the researcher has to make with regards to this procedure is the number of clusters to choose. In Figures 1 and 2, we display the grouping results for both foreign-born and native SE rates, considering 3 to 5 clusters.

**Figure 1: Clusters for foreign-born SE rates**



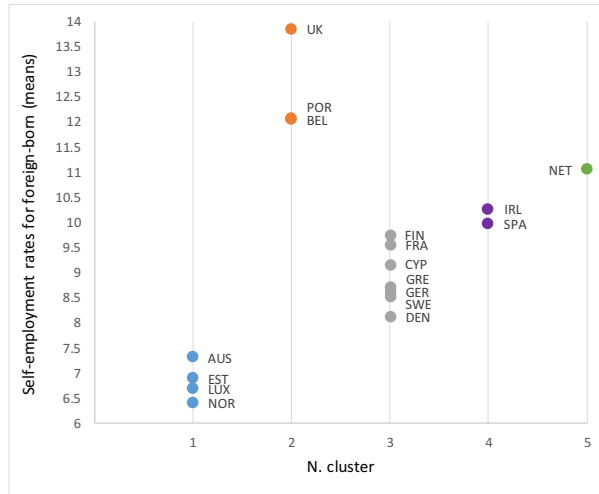
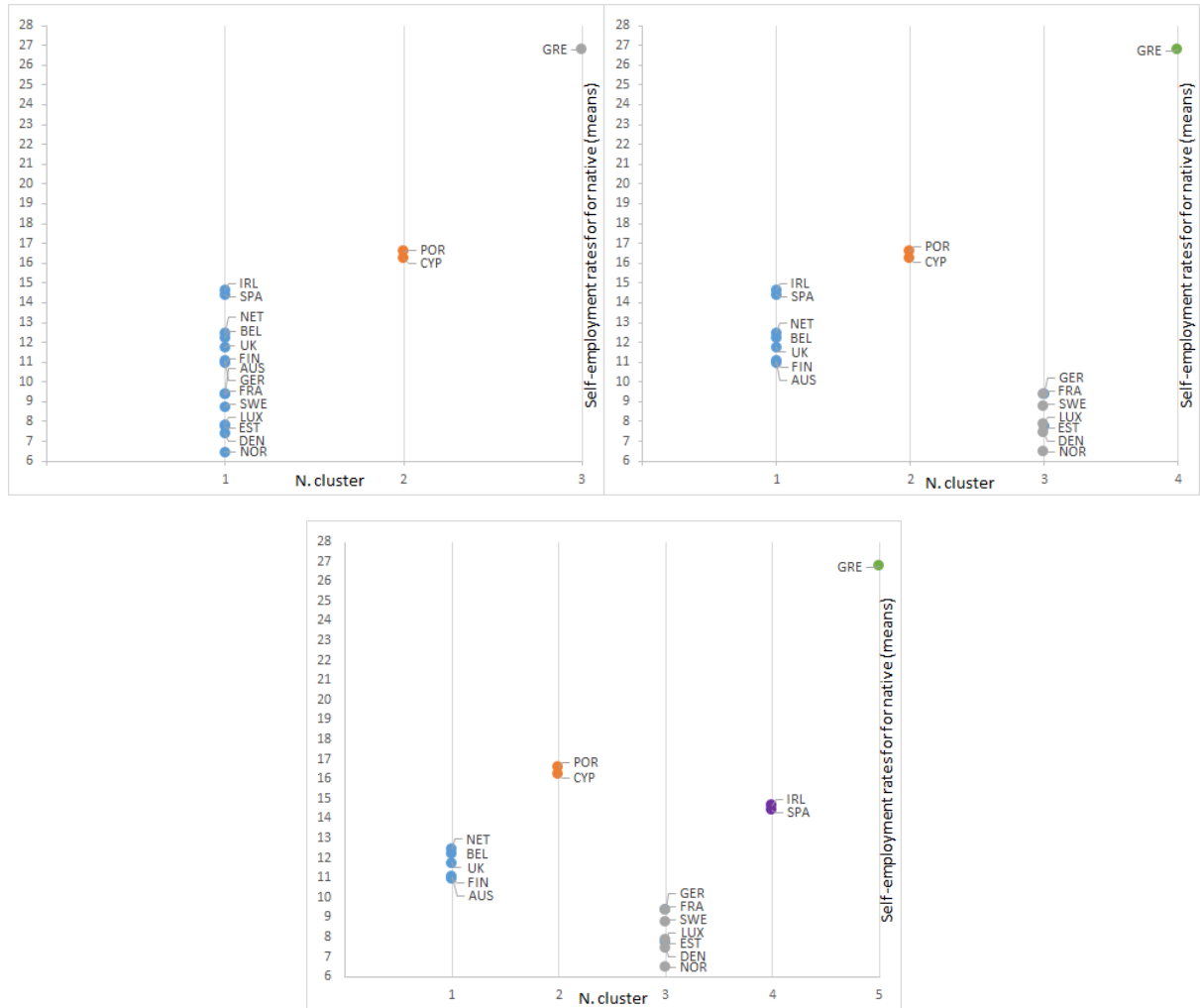


Figure 2: Clusters for native SE rates



It can be seen that the cluster members are remarkably similar for foreign-born and native SE rates if we choose 5 clusters. However, that is not the case if we choose 4 or 3 clusters. When looking at the cluster members in Figure 1 and focusing on the cases of 3 and 4 clusters, we find that there is a large group containing 11 countries from Central-Northern and Eastern European countries along with Greece and Cyprus, and then the periphery with the Netherlands or Belgium form their own groups.

However, when looking at the clusters in Figure 2, we find that the case with 4 clusters is quite similar to that with 3 clusters. Focusing on the case of 4 clusters in Figure 2, we obtain two bigger groups, but smaller than those in Figure 1; the first one contains a mixture of peripheral and core economies, a second group is composed of Central and Eastern European countries, and there are two more small groups with Southern European countries. As suggested in Cuadros et al. (2021), this implies that natives' SE rates seem to be more dissimilar than those of foreign-born individuals, and we see a greater presence of idiosyncratic features in natives, with immigrants tending to be more homogenous.

When comparing the results for foreign-born individuals (Figure 1) and natives (Figure 2), we can say that for native SE rates, the peripheral countries seem to differ from the core countries to a greater extent than they do with foreign-born SE rates. From Figure 1, we can see that some peripheral countries are merged with the core countries' cluster. This is an interesting outcome, since the fact that the foreign-born self-employed population tends to be more homogeneous makes the SE rates less dissimilar. Moreover, this result reflects the stronger influence of economic conditions on the SE rates for natives than the rates for migrants. According to the International Labour Organization ([https://www.ilo.org/wcmsp5/groups/public/---ed\\_protect/---protrav/---travail/documents/publication/wcms\\_357390.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_357390.pdf)), there are important differences in employment legislation between peripheral and core countries. In addition, peripheral countries are the ones that have suffered chronically higher unemployment rates and are considered to have more precarious jobs. This could explain the high rate of SE for the native population (Figure 2) when compared with the foreign-born population (Figure 1). However, when looking at the clusters, we can clearly see the more homogenous behaviour of SE rates for migrants in both periphery and core countries. As mentioned before, this may have to do with the fact that foreigners tend to be more homogenous in their behaviour and entrepreneurial skills.

### **3. Conclusion**

This paper provides new insights into the distinctive features of SE rates for foreign-born and native populations, by identifying clusters of convergence among groups of countries in Europe. Our analysis suggests that natives behave differently in peripheral and core countries, whereas the average SE rates for the foreign-born individuals in different countries are similar. These outcomes support the existence of common entrepreneurial behaviour in the case of the foreign-born population. The evidence provided suggests that local conditions cannot be the only explanation of SE rates in the case of the migrant population, as foreign-born individuals show common entrepreneurial behaviour in recipient countries which are clearly different in terms of their development stage and local conditions. These findings point to important differences between native and migrant populations in terms of their entrepreneurial skills and mindset.

Our analysis contributes to a better understanding of the differences in SE rates between migrant and native populations across Europe. This can provide useful insights for policy-making decisions. The implementation and effectiveness of initiatives targeted at boosting SE are expected to be heterogeneous as SE rates vary not only across countries but also across different types of individual (foreign-born versus native).

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