

24 - 26 | November 2021 | Madrid  
XLVI Reunión de Estudios Regionales

## International Conference on Regional Science

Full cities, empty territories

Universidad Autónoma de Madrid



## EXTENDED ABSTRACT

### The impact of COVID-19 on internal migration and residential mobility<sup>1</sup>. Is the Spanish population moving to rural areas?

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**Subject area:** Cambio demográfico, población y movimientos migratorios.

**Abstract:** Following the outbreak of the COVID-19 pandemic, governments implemented restrictive measures to contain the spread of the virus, which led to a decrease in the intensity of internal and international migration. However, it is still unclear how internal migration and residential mobility patterns have changed between cities, suburban areas and rural municipalities. It has been suggested that suburban and rural areas have become more attractive, but the lack of available data so far has not permitted this to be confirmed. The purpose of this research is to analyse the impact of the pandemic on the residential behaviour of the Spanish population. To do so, we rely on two sources of data. First, registers of residential movements that enable us to explore the spatial patterns of residential mobility and the demographic profile of the population who moved. Second, registers of housing transactions that allow us to analyse the variation in the number of real estate transactions. Preliminary results confirm an increase in the attractiveness of rural areas during 2020, especially the small villages located close to urban areas, and a slight increase in suburban municipalities.

**Keywords:** Covid-19, internal migration, residential mobility, suburbanization, ruralization, housing transactions.

**JEL codes:** R21, R23.

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<sup>1</sup> Since this paper will be submitted to a journal, please do not publish it after the XLVI International Conference of Regional Science.



## 1. Introduction

In the aftermath of the Covid-19 pandemic, authorities have implemented several measures to contain the spread of the virus, such as border closures, lockdowns, and mobility restrictions. These measures, together with the economic recession caused by the pandemic, have led to a very significant decline in levels of population mobility (IOM, 2020; Nicola et al., 2020). Several studies have documented a reduction in the intensity of international migration (Guadango, 2020; Wilson, 2021), long-distance internal migration (Bernard et al., 2020), residential mobility and daily mobility (Duque-Calvache et al., 2021). However, it is still unclear how mobility patterns have shifted since the outbreak of the pandemic, especially in terms of residential movements between cities, suburban areas, and rural environments. It is also not known to what extent the residential preferences of the population have changed. The eventual departure of the population living in densely populated urban areas to less dense and rural environments has appeared as a repeated theme in mass media and in public opinion since the start of the pandemic. However, the lack of data to date has not allowed to verify if this is a real phenomenon or just a mere anecdotal fact. If this were the case, it would constitute a turning point with respect to the observed trends over the last few years in Spain. While the period 1980-2008 was defined by strong suburbanization processes and the extension of the metropolitan area (Feria-Toribio y Susino, 2016), in recent years we have seen a relative return to urban cores, due to the growing attraction of central spaces (López-Gay, 2014), which has increased the spatial complexity of residential movements in metropolitan areas.

The aim of this research is to examine the impact of the pandemic on the residential behaviour of the Spanish population. We analyse if there has been a change in the residential mobility patterns across central cities, suburban areas, other cities and Spanish rural municipalities in 2020, compared to the five-year period 2014-2019. We also explore how housing transactions have changed over time in these same four territorial areas. We analyse residential flows by focusing on the demographic (sex and age) and spatial patterns (origin and destination of the movements). To do so, we use two data sources: The Statistics on Residential Variations (EVR) of the Spanish Statistical Office (INE) and the Real Estate Transactions of the Ministry of Transport, Mobility and Urban Agenda. The results that we are presenting in this extended abstract refer to the later source. The microdata that collect the 2020 residential variations in Spain have not been published yet, but they will be available in July 2020, allowing us to complete our analysis.

## 2. Methodology

As anticipated in the previous section, we use two databases: the EVR and the Real Estate Transactions. Both sources are compiled from registry data and provide information at the municipal level. The first one registers all housing changes including origin and destination matrices, while the second one registers housing purchase and sale transactions. Between mid-April and mid-June 2020, the Spanish population was



under a strict lockdown and no mobility between municipalities was allowed. There were practically no changes of residence or home buying and selling during this period. For this reason, we only use data from the second half of each year to compare 2020 with the previous five-year period.

We define four groups of municipalities for the analysis: central cities, suburban areas, other cities and rural areas. Central cities and suburban areas are considered to be those municipalities classified as such in the Statistical Atlas of Urban Areas of the Ministry of Public Works. The category 'other cities' includes municipalities larger than 10,000 inhabitants and 'rural areas' those smaller than 10,000 which are not included in any urban area. The 10,000 population threshold is the standard population used in Spain to distinguish urban and rural municipalities. We then categorized rural municipalities by size (< 2,000 inhabitants, 2,000 to 5,000 and 5,000 to 10,000) and distance from central cities (more and less than 40 km). To determine the distance from rural municipalities to central cities, we use geographic information systems (GIS), by generating a 40 km buffer from every central city.

Using the EVR, we will study the variation of the intensity of inflows and outflows in each type of municipality from 2014 to 2020. Next, we will analyse the origin-destination matrices between geographic typologies and the age and sex profile of migrants. For the housing data, we analyse the variation in the number of real estate transactions in each geographic typology. As we have already indicated, migration data are not yet available, therefore we only present preliminary results for housing transactions in this document.

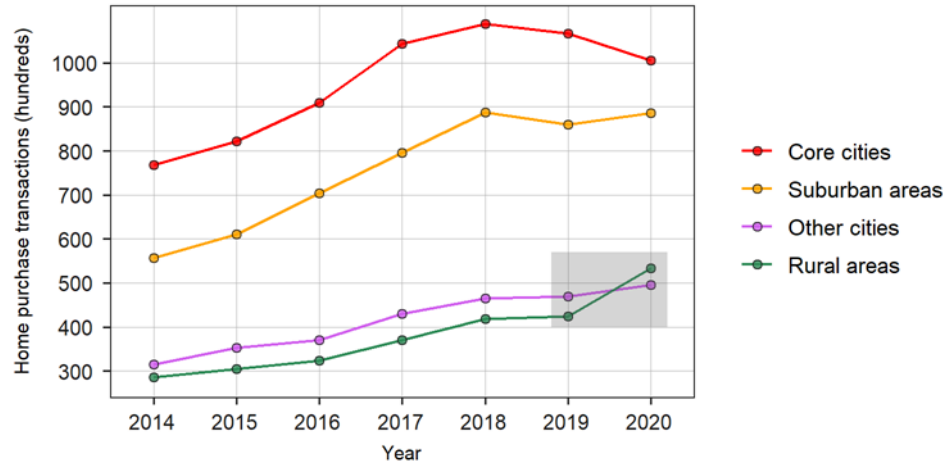
### 3. Preliminary results

Between 2014 and 2018, home transactions increased in all the territorial typologies that we defined (Figure 1). Between 2018 and 2019, a deceleration of real estate transactions is observed, with a small decline in central cities and suburban areas and a stagnation in other cities and rural areas. In 2020, the year of the pandemic, we identify a decline in home transactions in central cities compared to the previous year. In contrast, suburban areas exhibit a slight increase in transactions, which indicates a small rebound in suburbanization processes. Likewise, we also detect a modest increase in cities outside of large urban areas. In rural environments, however, we observe an increase of 20.45% in the number of housing sales and purchases. In the second half of 2020, 53,344 real estate transactions were registered, compared to 42,437 in the previous year. Despite this increase, acquisitions in rural areas still account for a small share of the total number of transactions. Property purchases were concentrated in urban cores (100,605) and metropolitan areas (88,609), similar figures to previous years. Housing transactions in rural areas have exceeded levels recorded by cities not located in metropolitan areas in 2020. In the years before the pandemic, the number of transactions in the first typology was higher, although the difference was not significant.

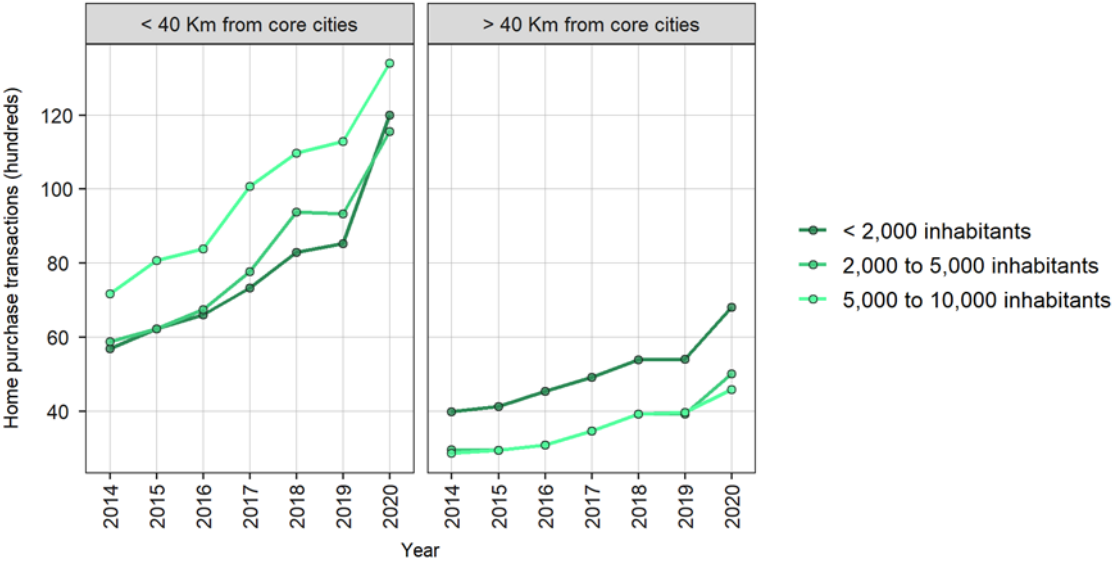
As for the type of rural municipalities by size and proximity to urban cores, we observe a similar trend as described for the rural areas as a whole: a steady increase until 2018 and a deceleration, but with some nuances, in 2019 (Figure 2). In 2020, there is an increase in the number of transactions for all types of rural environments. The largest rise is seen in rural municipalities under 2,000 inhabitants located less than 40 km from central cities. Transactions increased from 8,527 to 11,993, which is a growth of 28.9%. Rural areas between 2,000 and 5,000 and between 5,000 and 10,000 inhabitants

increased by 19.21% and 15.75%, respectively. In rural areas at more than 40 km from urban centres, the growth has been 20.49% in municipalities of less than 2,000 inhabitants, 21.72% in those with a population between 2,000 and 5,000 inhabitants and 13.71% in those of more than 5,000 inhabitants. Even though there has been an increase in the number of housing acquisitions in remote rural areas, they only represent a small proportion of the total number of homes purchased in rural territories. Most of the transactions in those environments are located near the cities. Although there is little variation in the number of transactions by municipality size within the group of villages close to cities, the largest number of home purchases are made in municipalities with more than 5,000 inhabitants. However, the greater increase in transactions in 2020 in those villages with less than 2,000 and 2,000 to 5,000 residents has reduced the gap between the different size typologies within the rural near cities.

**Figure 1. Housing transactions between 2014 and 2020, by type of municipality. Second half of the year**



**Figure 2. Housing transactions between 2014 and 2020 in the rural municipalities, by type of size and distance to urban cores. Second half of the year**





#### 4. Preliminary conclusions and hypotheses on the internal migration data

Our results reveal a 20.4% increase in home transactions in rural areas between the second half of 2019 and 2020, while 2019 registered a deceleration in transactions. We have also identified a modest increase in suburban areas, while urban cores registered a decrease in housing acquisitions. Regardless of the size of the municipality and its proximity to central cities, all rural areas have experienced a rise in the number of housing transactions. However, the greatest increase was recorded in the smallest municipalities located close to urban areas, where home acquisitions grew by 28.9 %. Although purchases in more remote rural locations also increased, most of the transactions were concentrated in those rural municipalities that are close to the cities. We conclude that there was a growing residential demand for housing in rural areas, but residential preferences appear to be trending to less populated villages close to cities. Despite the growth of real estate transactions in rural areas, it must be noted that housing purchases in these territories accounted for a small part of the whole during the second half of 2020. There were 53,344 registered transactions, a slightly higher figure than in cities outside metropolitan areas, compared to 100,605 in central cities and 88,609 in suburban areas.

By including registers of internal migration and residential mobility in the analysis, we will complement the study and will be able to provide a broader demographic perspective to this research. Firstly, we will be able to check whether we also see an increase in migratory movements to rural areas. If this is not the case, the rise in transactions could be due to a growing demand for second homes and a temporary use of the territory, and not so much to long-term settlements. Secondly, by examining migratory and residential flow matrices of origin and destination as well as sociodemographic information, we will be in a position to identify the spatial patterns and the demographic characteristics of the post-COVID-19 mobility in Spain. It will be important to understand if the suggested changes are sufficiently intense to constitute a significant break from pre-epidemic spatial patterns of residential mobility.

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