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# A 'donut effect'? Assessing housing transactions during COVID-19 across the Spanish rural–urban hierarchy

Miguel González-Leonardo <sup>a</sup>, Francisco Rowe <sup>b</sup> and Arturo Vegas-Sánchez<sup>c</sup>

## ABSTRACT

We assess if a 'donut effect' has occurred in Spain during the COVID-19 pandemic. Our results show a synchronized 30% drop in housing purchases during the national lockdown in 2020, followed by a significant increase from 2021 across the rural-urban continuum, including core cities, suburbs, towns and rural areas, exceeding pre-pandemic levels. We thus found no evidence of a 'donut effect' in Spain.

## ARTICLE HISTORY


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## KEYWORDS

housing purchases; 'donut effect'; COVID-19 pandemic; rural-urban continuum; Spain

During the COVID-19 pandemic, a 'donut effect' has been documented in urban areas, with declining housing activity in core cities but rises in surrounding less dense areas (Ramani & Bloom, 2021). Yet, this evidence has been limited to the United States. In Spain, we know that cities have recorded increasing levels of internal migration to less densely populated areas (González-Leonardo et al., 2022a). We use half-yearly register data from the Spanish Ministerio de Transportes, Movilidad y Agenda Urbana (MITMA) to analyse housing transactions in four territorial typologies between 2017 and 2022: core cities, suburbs, towns and rural areas.

Figure 1a shows the total number of housing purchases by territorial typology, Figure 1b an index number with base 100 = S2 2019, and Figure 1c the distribution of transactions amongst typologies. The number and distribution of purchases remained largely stable from 2017 to 2019, fluctuating around 280,000 per year – the majority in core cities (39%) and suburbs (30%), with a slight increase in rural areas. In the first semester of 2020, during the national lockdown in Spain, the pandemic triggered a 30% general decrease in transactions, declining to 194,000. Since the second half of 2020, when the lockdown was lifted, housing purchases have

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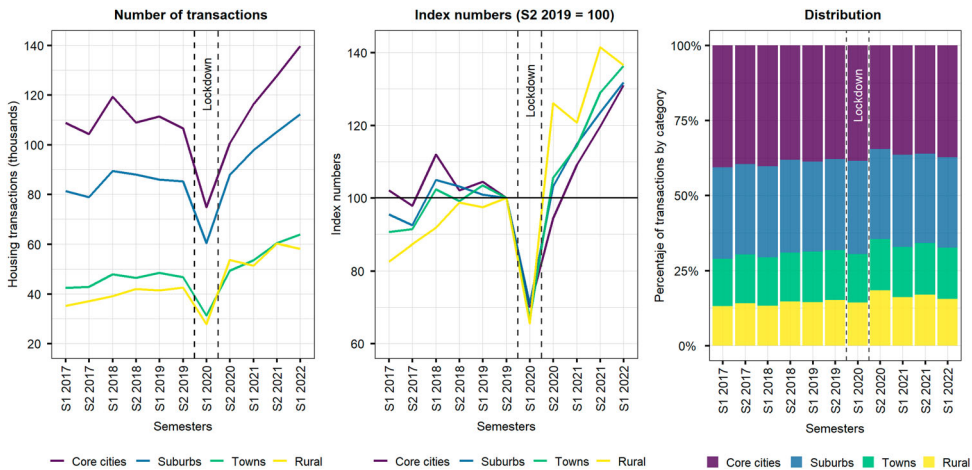
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**Figure 1.** Housing transactions in Spain by territorial typology, 2017–22. Source: Compiled by the authors using data from MITMA.

increased exceeding pre-pandemic levels (291,000). Our index number indicates an accelerated increase in real estate transactions across Spain, slightly higher in rural areas. Yet, we note a remarkable degree of stability in the distribution of housing purchases across the rural-urban continuum.

Our findings suggest no signs of a ‘donut effect’ in Spain during the COVID-19 pandemic. They reveal a synchronized decline in housing transitions during the national lockdown, and a subsequent bounce across Spain, particularly notable in rural areas reflecting a persistent rise in internal migration movements to these areas since the wake of COVID-19 from 2021 to 2022 (González-Leonardo et al 2022b; González-Leonardo & Rowe, 2022). The recovery in housing transactions in core cities challenges the ‘donut effect’ observed in the United States as a universal trend caused by COVID-19.

## DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

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