Rental Market Dynamics as a Regional Health Determinant: Evidence from Spain's Autonomous Communities

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1. Objectives and contribution

Mental health has become a core dimension of social welfare and an increasingly salient challenge for territorial cohesion. While much of the evidence on mental health focuses on individual-level risk factors and clinical determinants, there is growing interest in how structural economic conditions shape mental health outcomes across places. One prominent structural driver is the cost of housing, which affects disposable income, perceived security, and the ability to cope with shocks. In contexts where rental markets experience sustained price increases, housing-related financial stress may accumulate over time, potentially translating into a higher prevalence of mental health problems.

A key point, however, is that housing pressure is rarely uniform. Even within the same region, rental markets tend to be segmented: rent increases can be concentrated in certain dwelling types, neighbourhoods, or submarkets. As a result, the social burden of rent inflation may be distributed unevenly across households, even if average regional rent levels appear stable. This segmentation matters for a territorial inequality perspective because it implies that regions may experience similar average rental trends while facing very different distributions of exposure to affordability pressure. Such differences can plausibly contribute to unequal regional trajectories in mental health.

This paper studies whether rental price dynamics are associated with changes in the prevalence of mental health problems across Spanish Autonomous Communities (CCAA) over the period 2011–2023, and whether these associations differ across segments of the rental market proxied by dwelling size. The analysis is designed to speak directly to policy debates about territorial justice: if mental health burdens are linked to rent shocks that disproportionately occur in particular rental segments (e.g., small and medium dwellings), then place-based strategies should focus not only on overall rent growth, but also on where within the market price pressure is strongest.

The contribution is the following: First, rather than focusing on average rent levels, we emphasise annual rent changes and "rent shocks", which are more directly linked to changes in affordability and economic stress. Second, we explicitly model unequal exposure by estimating the association between mental health prevalence and rental price changes separately by dwelling size (small, medium, large), treating size-specific rental indices as a proxy for segmentation within regional rental markets. Third, we adopt a regional empirical framework that accounts for heterogeneity across territories and interregional dependence, recognising that Spanish regions are connected through housing, labour, and migration dynamics and that regional outcomes may co-move.

2. Data

We compile a longitudinal dataset for Spain's Autonomous Communities covering the period 2011–2023. Rental market information is obtained from official statistics produced by the Spanish National Statistics Institute (INE) and is operationalised as annual changes in rental price indices. To capture segmentation, rent dynamics are measured separately by dwelling size. This enables

us to distinguish price pressure in market segments often associated with tighter affordability constraints (typically smaller and medium units) from dynamics observed in larger dwellings.

Regional mental health outcomes are measured using official administrative health statistics compiled at regional level. The dependent variable is a region-year measure of mental health prevalence, designed to capture changes in the burden of mental health problems over time within each region. The empirical models include time-varying controls capturing socioeconomic and demographic conditions at the regional level, aimed at reducing confounding from factors that may simultaneously influence rental market dynamics and mental health prevalence (e.g., labour market conditions, compositional changes, and broader economic trends).

The final panel structure allows us to exploit within-region variation over time and to compare differences across regions in the intensity, timing, and segmentation of rental price pressure.

3. Conceptual framework and mechanisms

The empirical analysis is motivated by a straightforward mechanism: rental price increases may generate affordability pressure, which can translate into psychological stress and deteriorations in mental health. This may occur through multiple channels.

First, rent inflation reduces disposable income for renters (or increases the risk of future rent adjustments), which can heighten financial strain. Financial strain is a well-established correlate of anxiety and depressive symptoms, and can reduce coping capacity in the face of shocks. Second, housing pressure may increase residential insecurity and perceived instability, particularly in regions or market segments where short-term rental contracts, frequent rent revisions, or tight supply amplify uncertainty. Third, affordability constraints can lead to crowding, delayed household formation, forced co-residence, or reduced ability to choose supportive neighbourhood environments, all of which may be associated with worse mental well-being. Fourth, housing cost pressure may interact with labour market volatility and regional economic cycles, potentially amplifying territorial inequality if vulnerable groups are concentrated in the segments where rent inflation is strongest.

Segmentation is central in this framework. If rent increases are concentrated in small and medium dwellings, and these segments disproportionately serve young adults, single households, or lower-income renters, then the social stress generated by rent inflation may be higher than what would be inferred from a single average index. Even in a region where the overall rental index changes modestly, strong increases in segments with high demand and limited substitutes could generate substantial affordability pressure for a large share of renters. This motivates an empirical design that explicitly compares rent dynamics by dwelling size.

4. Methods and empirical strategy

Our empirical strategy relates changes in regional mental health prevalence to rental price dynamics, using panel models over region-year observations. The main explanatory variables are annual changes in rental price indices. We model these both contemporaneously and with lags. The inclusion of lags is motivated by the idea that affordability stress may take time to affect mental health outcomes: households may initially respond by cutting consumption, drawing on savings, or changing living arrangements, while mental health consequences may materialise gradually.

To capture segmentation, we estimate parallel specifications using rental price changes by dwelling size. The core comparison is whether the association between rent increases and mental health prevalence is stronger in segments where affordability pressure is likely to be most binding. We also allow for regional heterogeneity in the relationship, recognising that institutions, supply constraints, and the composition of renters may vary across Autonomous Communities.

Because interregional dynamics may matter—for example, through migration, commuting zones, or spillovers in housing markets—we adopt specifications that account for interregional dependence. This is important for a territorial inequality perspective: if neighbouring regions experience correlated housing and mental health dynamics, ignoring cross-region dependence may bias inference or overstate precision. We therefore consider approaches that reduce this risk (e.g., appropriate error structures and/or explicit modelling of dependence), while keeping the focus on interpretability and policy relevance.

Overall, the empirical design is intended to provide a transparent, policy-oriented assessment of whether rent shocks are associated with subsequent changes in mental health prevalence at the regional level, and whether segmentation by dwelling size helps explain territorial differences.

5. Tentative results: what will be presented

Results are currently being finalised; the conference version will present a structured set of findings that follow directly from the empirical design and are organised around three questions: (i) Is rent growth associated with mental health prevalence? (ii) Is the association stronger in specific rental segments? (iii) Do effects vary across territories? Below we outline the set of results and robustness checks that will be reported.

First, we will report baseline estimates linking annual rent changes to mental health prevalence, including contemporaneous and lagged rent changes. The key output will be the sign, magnitude, and statistical significance of the rent-growth coefficients, as well as evidence on whether the relationship is primarily contemporaneous or delayed. Because the mechanism is cumulative stress, we expect that models allowing for lags will be informative about timing: for example, rent increases in year $t-1$ or $t-2$ may exhibit stronger associations than contemporaneous changes, consistent with delayed mental health responses.

Second, we will show results from segment-specific models where rent changes are measured separately for small, medium, and large dwellings. The focus is on whether rent inflation concentrated in particular dwelling types is more strongly associated with mental health prevalence. The working hypothesis motivating the segmentation analysis is that rent shocks in small and medium dwellings will be more tightly linked to mental health outcomes than rent changes in larger dwellings, given differences in affordability constraints and market tightness across segments.

Third, we will document how estimated relationships vary across regions. This will include presenting region-specific estimates or measures of heterogeneity that identify whether some regions appear systematically more vulnerable to rental price pressure. The extended abstract will highlight how such heterogeneity aligns with a territorial inequality perspective: differences across regions may reflect varying housing supply constraints, institutional settings, and socioeconomic composition. The conference version will interpret heterogeneity cautiously and focus on policy-relevant patterns rather than purely statistical variation.

To support credibility, we will report a set of robustness checks that test whether the core findings are sensitive to modelling choices. These checks will include: alternative lag structures; alternative control sets; and specifications designed to account for interregional dependence. The goal is to assess whether the main qualitative conclusions—existence of an association, its timing, and its stronger presence in specific segments—remain stable.

6. Conclusions and policy relevance

This paper is motivated by a territorial inequality perspective: if housing affordability pressure is a structural driver of mental health, then unequal exposure to rent shocks may contribute to persistent regional disparities in well-being. The segmentation approach is central for policy

relevance. If mental health prevalence responds more strongly to rent inflation in specific dwelling types, policies that only track average rents may miss where affordability stress is most intense.

From a public policy standpoint, the results are intended to inform integrated strategies connecting housing and mental health. Housing affordability instruments—such as measures affecting rental supply, tenant protection, or targeted affordability support—are typically designed and implemented with housing-market outcomes in mind. Our approach highlights that they may also have implications for mental health, particularly if they reduce exposure to sudden rent increases in vulnerable market segments. Conversely, mental health planning and prevention strategies may benefit from recognising that cost-of-living pressures and housing instability can be upstream determinants of regional mental health burdens.

Importantly, the paper does not assume that one policy instrument fits all territories. The emphasis on territorial heterogeneity implies that regions may require differentiated responses depending on which market segments are under greatest pressure and how local socioeconomic conditions shape vulnerability. In this sense, the analysis speaks directly to the objectives of territorial justice: identifying structural drivers of health inequalities and clarifying where policy coordination across sectors may be most beneficial.