

Bidding for Safety: The Impact of Local Crime on Housing Price Dynamics

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Extended Abstract

1. Introduction

Crime not only affects neighborhood desirability and perceived safety but also plays a crucial role in economic decisions, particularly in the housing market. This paper examines the impact of crime on housing market outcomes in Catalonia focusing on two key dimensions: price discounts between listing and final selling prices and the probability of a property being sold. By leveraging a geocoded dataset that combines real estate listings and administrative crime reports, we estimate how crime influences negotiation processes and the likelihood of successful transactions.

2. Data and empirical strategy

Our analysis relies on a unique dataset from a major bank-owned real estate firm, covering a significant share of the housing stock held by financial institutions for the period 2011 and 2013. We merge this data with detailed administrative crime records from the Catalan regional police (Mossos d'Esquadra), which provide precise timestamps and locations of reported crimes.

We employ a fixed-effects regression framework to estimate the effect of crime on housing discounts, controlling for unobserved heterogeneity at the property and temporal levels. Additionally, we explore the probability of sale using a logit model, where the dependent variable is a binary indicator (1 = property sold, 0 = not sold). We consider three spatial crime aggregation levels (50m, 100m, and 200m) for each housing unit to capture the localized impact of criminal activity.

3. Main findings

Our findings reveal a strong relationship between crime and housing market outcomes, with three key takeaways:

1. Crime reduces the probability of sale: Properties located in high-crime areas are less likely to be sold within the observed period. This effect is particularly pronounced for violent crimes and civil disorder, whereas property-related crimes exhibit weaker and less consistent effects.

2. Crime increases price discounts: The presence of criminal activity near a property leads to larger price reductions during the negotiation process. The effect is strongest within a 50-meter radius, suggesting that proximity to crime strongly influences buyers' bargaining power.
3. Coherent impact across models: Our results suggest a logical pattern—properties in high-crime areas not only face lower selling probabilities, but when they do sell, they experience greater price discounts. This reinforces the idea that buyers require significant price reductions to compensate for the perceived risk associated with crime.

4. Robustness and heterogeneity analysis

To ensure robustness, we replicate our analysis across different crime types (violent, property, civil disorder) and geographical subregions (Barcelona city and the Metropolitan Area). Additionally, we conduct a heterogeneity analysis by district to examine localized differences in how crime affects housing outcomes.

5. Policy implications and conclusion

Our study provides valuable insights for policymakers, urban planners, and real estate professionals. The findings suggest that crime deterrence policies and safety improvements could play a role in stabilizing property values and enhancing market liquidity in affected areas. Additionally, understanding how crime influences housing dynamics can help inform willingness-to-pay (WTP) calculations for safer environments.

In summary, crime imposes a dual burden on the housing market: it makes properties harder to sell and forces sellers to accept deeper price cuts. These findings align with economic theories of urban disamenities and emphasize the importance of crime reduction strategies to improve housing market efficiency.