

New Light on the Effects of Rent Control in Catalonia

Housing affordability is an increasingly important problem in cities around the world. In Europe, approximately one in ten families spend more than 40% of their income on housing costs, a situation referred to as “housing overburden”, which is particularly acute in cities (Eurostat, 2021). In Spain, 20% of tenant households are overburdened by housing costs, spending over 40% of their income on housing (OECD, 2021). The extent and importance of this phenomenon has led to the coinage of the term “housing affordability crisis” (UN-Habitat, 2020).

The housing affordability crisis has sparked the interest of citizens, policymakers, and academics in policies aimed at improving housing affordability in densely populated areas. One of the flagship measures in this debate is the adoption of rent control systems. These policies are often popular with voters and their adoption does not involve direct government expenditures. Cities such as Paris and Berlin have chosen this path and have recently adopted rent control systems.

From an economics perspective, the case for rent control policies has traditionally been considered weak, as caps on rents can lead to housing supply shortages and misallocation of housing units (Glaeser and Luttmer, 2003). However, rent control policies can create net welfare gains (especially for low-income families) as they act as an insurance device in a context of incomplete markets and risk aversion (Favilukis et al, 2023).

From an empirical perspective, there are two main questions to analyse. First, given the enforcement problems that these policies might face, are rent control policies effective in reducing the growth of rental prices? Second, how large are the negative effects of these policies on the supply of rental units?

The empirical literature suggests that the answers to these two questions depend on the design and institutional details of the regulation. While Diamond et al (2019) finds that in San Francisco rent control was effective in reducing rent growth, Breidenbach et al (2021) conclude that, in the German case, the effect of the policy on rents was short-lived due to enforcement issues. As for supply effects, larger negative effects are expected in contexts where landlords can more easily displace units from a regulated to a non-regulated market segment. For instance, the possibility of avoiding the regulation by converting rental units to condos in San Francisco (Diamond et al, 2019) or by renovating units in Germany (Mense et al, 2019) are two specific mechanisms by which regulation shrinks the size of the regulated rental market. Therefore, the effects of rent control policies seem to be highly context-specific.

In a recently published working paper (see Jofre-Monseny Martínez-Mazza and Segú, 2022) we tried to shed light on the rent control

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literature by studying the rent control system implemented in Catalonia in the fall of 2020.

Our study

In September 2020, the Catalan government implemented a rent control system that applied to some, but not all, municipalities. The regulation applied to municipalities exceeding 20,000 inhabitants with a tight rental market. In rent-controlled municipalities, rental prices had to be below a dwelling and area-specific nominal cap and could not exceed the previous rent of that housing unit. The policy covered virtually the entire rental market, with higher nominal caps for units built during the last five years. Ads and tenancy agreements had to include the applicable rent cap, and fines were stipulated to ensure enforcement. The policy ended in March 2022, when it was declared unconstitutional.

To study the impact of the regulation, we used micro-data generously provided by the Catalan Land Institute (INCASOL) and the Catalan Housing Agency (AHC). This data covers the universe of tenancy agreements signed and ended in Catalonia between 2016 and 2022.

To identify the causal effect of the rent control regulation, we exploited the fact that only a subset of municipalities was subject to rent control. We aggregated the data at the municipality-quarter level and implemented difference-in-differences regressions and event-study designs. In particular, we compared regulated municipalities to a group of non-regulated municipalities that also experienced a tight housing market but did not meet the population criteria. This allowed us to compare two groups of municipalities with similar rental market pre-trends since both groups had tight housing markets. We examined changes in average rents, the number of tenancy agreements signed and ended, and the active stock of rental units in regulated vs non-regulated municipalities.

In Figure 1, we plot the average rent and total contracts per 1000 inhabitants by treatment group. Figure 1a shows that rents dropped markedly in the regulated group in the fourth quarter of 2020, when

the rent control system was adopted. Prior to this, despite a difference in price levels, the two groups of municipalities had a similar rental price evolution. Figure 1b shows that while regulated municipalities had a slightly larger number of tenancy agreements, this difference was remarkably constant over time. Both groups experienced a massive reduction in tenancy agreements in the second quarter of 2020 due to the COVID-19 lockdown. There is no strong visual indication that rent control widened or narrowed the gap in tenancy agreements between regulated and non-regulated.

Our event-study results suggest that rents decreased between 4% and 5% in regulated municipalities relative to non-regulated municipalities (see Figure 2a). In contrast, we found no evidence that the regulation reduced the number of tenancy agreements signed, suggesting that supply shortages in the short run are not necessarily substantial (Figure 2b). We further explore the supply effects of rent control by looking at the number of ended agreements and the stock of rented units. Both outcomes seem unaffected by rent control, confirming that the number of rented units did not shrink due to the regulation. Moreover, we did not find that the policy changed the quality of rented units, which minimises concerns that changes in the composition of units drive the estimated price effects.

Our setting allowed us to identify an anticipation effect in the number of signed agreements. In the two weeks before rent control was approved by the Parliament, an extraordinary number of contracts were registered. This effect can be seen in Figure 2b, where the coefficient associated with the third quarter of 2020 (right before the rent control) is positive and statistically significant.

We implemented several strategies to address the potential confounding effect of COVID-19 on housing markets. First, in our baseline regression,

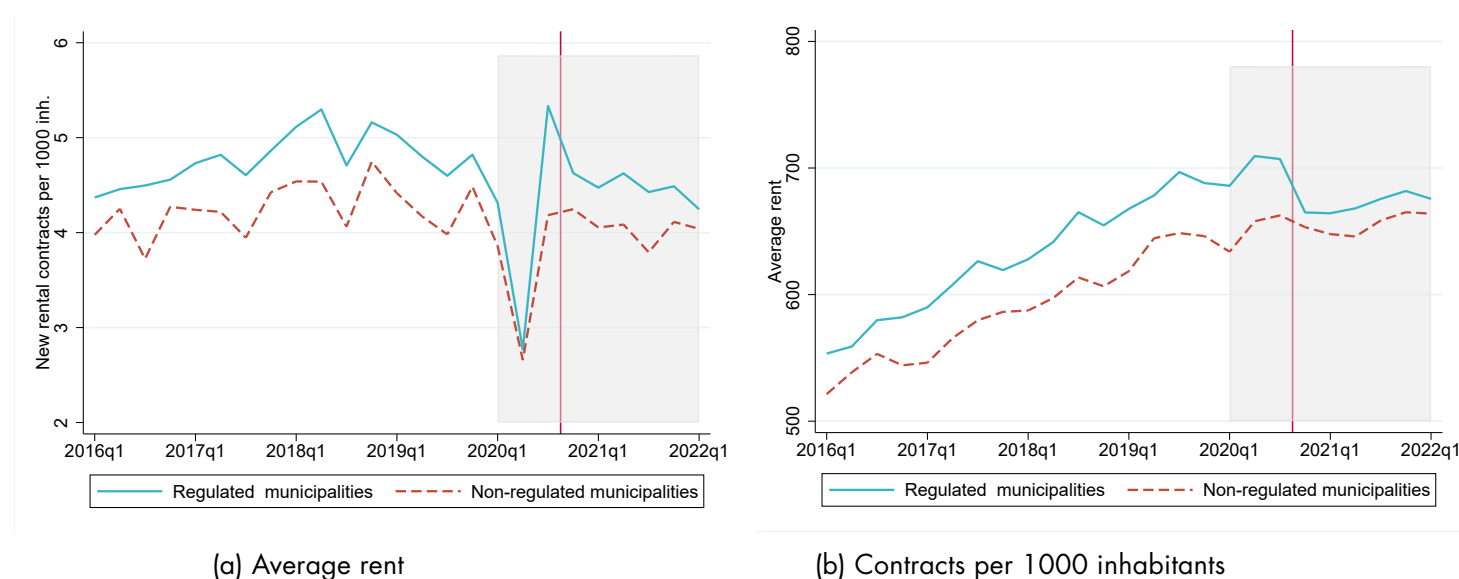
The literature suggests that the effects of rent control policies are highly specific to the exact regulation and context.

we accounted for the dynamics of local labour markets by controlling for unemployment, COVID-19 furloughs and the number of new employment contracts. Second, we accounted for possible “donut” effects of COVID-19 on housing markets by introducing a COVID-19 dummy interacted with distance dummies to the central business district or, alternatively, the COVID-19 dummy interacted with municipality-size dummies. Third, we included direct measures of in-migration and out-migration rates at the municipality level as control variables. All of these empirical analyses suggest that the differential effects of COVID-19 on regulated and non-regulated markets do not drive our findings.

Next, we checked that our results were robust to alternative econometric specifications (including municipality-specific linear time trends) and alternative samples with smaller population differences between regulated and non-regulated municipalities. We also checked that the results are robust to excluding touristic municipalities or including Barcelona in the sample.

The end of rent control in March 2022 provided an additional robustness exercise. We found that the price effects of the policy

Figure 1: Evolution of rental markets in regulated and non-regulated municipalities



Notes: (a) plot the evolution of the average rent for regulated (58 municipalities) and non-regulated municipalities) while (b) shows the evolution of the number of tenancy agreements signed in each quarter per 1000 inhabitants. The vertical indicates the implementation of rent control while pandemic quarters are shaded in gray.

Our results suggest that rents decreased between 4% and 5% in regulated municipalities relative to non-regulated municipalities, while we did not find a reduction in the number of tenancy agreements signed.

were approximately constant between the first and the last quarter of the regulation. However, once the regulation was overturned, the price difference between regulated and non-regulated municipalities returned to pre-regulation levels.

A 4% rent reduction implies an average annual savings of €358 for tenants with new contracts. The rent control policy affected over 190,000 contracts that should be active for five years, which amounts to approximately €300 million. To put this figure into context, the Catalan government spent €100 million on subsidised rent in 2021.

Other research on Catalan rent control

Ours is not the only study to focus on rent control in Catalonia. Two papers have provided alternative evaluations of the rent control policy: Kholodilin et al (2022) and Monras and Montalvo (2023).

First, Kholodilin et al (2022) used posted rents and housing prices provided by Idealista to evaluate the impact of the introduction of rent control

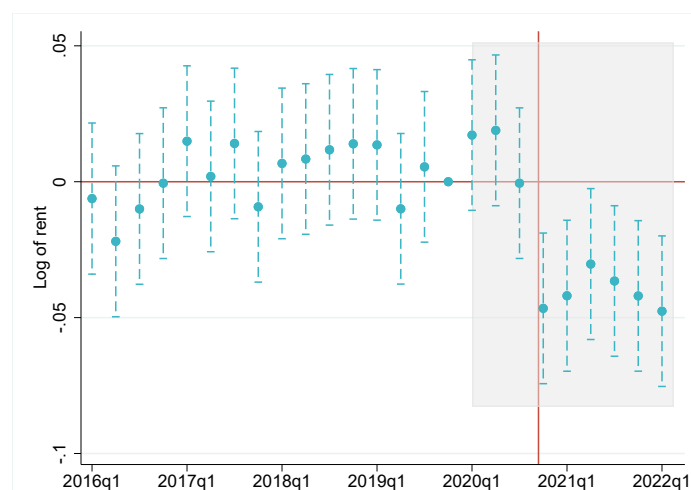
on the housing market. They implemented a difference-in-differences approach and found that the introduction of rent control decreased rents in regulated municipalities by 6% to 7%. Additionally, they found no statistically significant effects on the number of advertisements. In line with our results, their study suggests that the supply effects of rent control were not large.

Second, and more closely related to ours, is the study by Monras and Montalvo (2022). In their research, they exploited the same micro-data provided by INCASOL and AHC and applied a similar empirical strategy. They showed that rent control reduced average rents by 5%, which is very similar to our own estimate. However, they showed that the policy led to a convergence of prices toward the reference price, meaning that units that were rented below the reference price increased their rent.

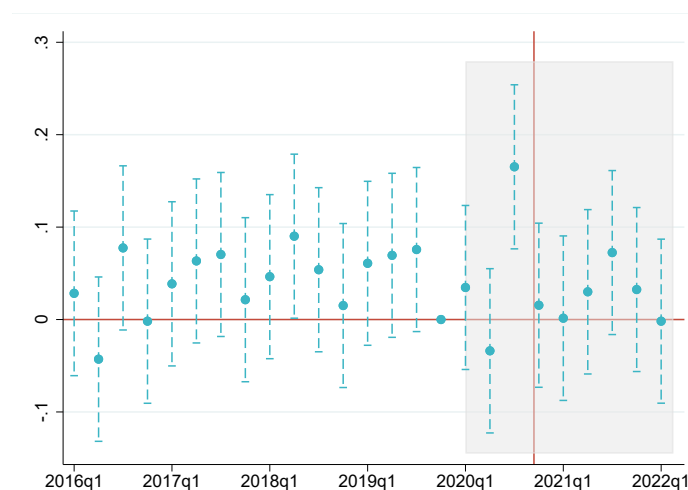
In contrast to our study, they found a large, negative and significant effect on the number of agreements signed. The source of this difference does not come from data aggregation issues (both studies use micro-data on rental agreements), nor from the exclusion of the municipality of Barcelona, as was pointed out in the policy report by García Montalvo et al (2023). The difference in the results between the two studies comes from the different methodological approach chosen to deal with the potentially different trends in outcome variables between regulated and non-regulated municipalities.

In our study, we defined a more restricted control group, using only non-regulated municipalities that had a tight rental market and were below the 20,000-inhabitant threshold. Our final sample was composed of 148 municipalities with 58 and 90 municipalities in the treated and control groups, respectively. By doing so, we obtained a treated and control

Figure 2: Event study for rents and new tenancy agreements



(a) Effect on rents



(a) Effect on tenancy agreements

Notes: Graphs plot the interaction terms between the treatment indicator and a set of quarter dummies and their 95% confidence intervals (see equation 2). Outcome variables are (log of) average rents and log of tenancy agreements per 1,000 inhabitants. In both cases, the vertical line indicates the implementation of rent control. The beginning of the shaded area indicates the start of the pandemic.

group that displayed a similar evolution in the rental market before the regulation came into effect. The similarity in pre-trends between treated and control municipalities can be seen in Figure 1.

Monras and Montalvo (2022) followed a different approach. This study used data from all municipalities for which some data were available (resulting in a sample of over 400 municipalities) and employed a statistical method that allowed for some forms of heterogeneity in time trends across municipalities. In our opinion, our approach of selecting a more restrictive control group is a more conservative choice since it does not require an additional estimation procedure to control for different pre-trends between the two groups. The fact that our results are very robust across different econometric specifications and alternative samples supports our strategy.

In conclusion, our study provides evidence that rent control can effectively reduce rental prices without necessarily shrinking the rental market. Rent control policies are likely to continue to be on the agenda of regional and national governments. Our findings contribute to a more informed debate regarding rent control policies and the design of policies aimed at improving housing affordability in urban areas.

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