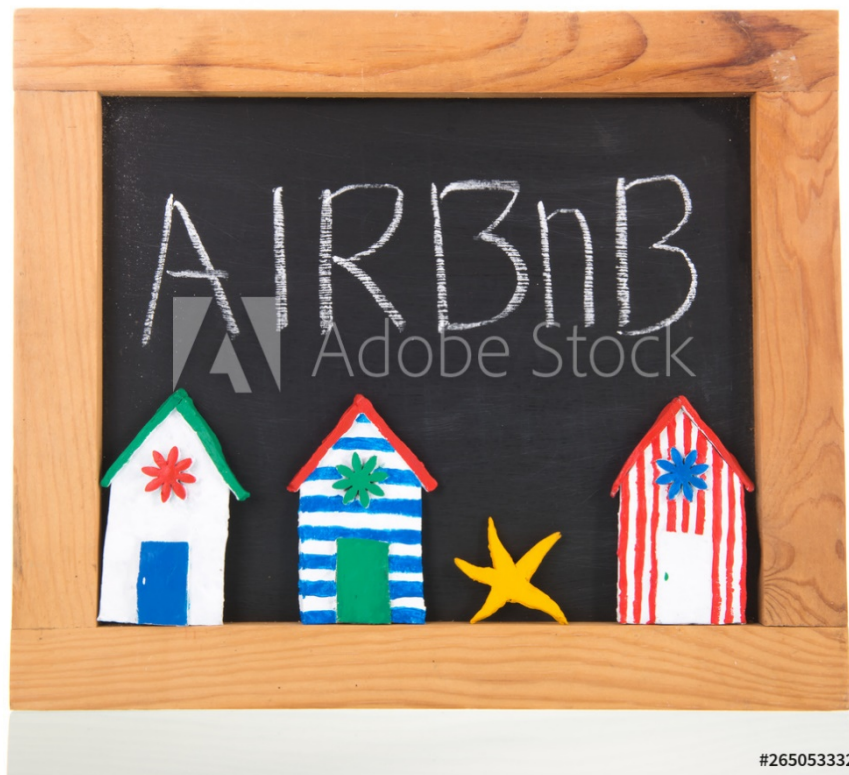


The Econometrics Game 2021

April 8-9, 2021

The Sharing Economy – Airbnb and The Housing Market



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In cooperation with Brainbay.

The Sharing Economy – Airbnb and The Housing Market

CASE B – Airbnb and the transaction process

Congratulations on making it to the finale. We wish you good luck, and lots of wisdom, for the task ahead.

For the final we would like you to look more closely at the transaction process. In particular, there are now two new variables available: the time on market (TOM) in days and the asking/list price in euros.

Modelling house prices, asking prices, and time on market

Prices are an equilibrium concept between buyers and sellers. However, before the final transaction takes place a house is listed for sale for a particular asking price and it typically takes some time for the house to be sold. This additional information can be used to better understand the market impact of AIRBNB. However, the main identification challenge is that house prices, asking prices, and the time on market are interrelated. So you will need to use appropriate simultaneous equation techniques or smartly combining the variables to measure the broader market impact of AIRBNB. Some guidance can be found by looking at Dubé and Legros (2016) and/or Genesove and Mayer (1997), but you are *free to choose your own model, method*. Surprise us.

Data

The original dataset but with TOM and asking prices is available as AIRBNB_Houseprices_ext in both STATA and txt (tab delimited) format. If you only want the variables themselves you can use the TOM_askingprice data and merge to your data based on the unique identifier obs_id. The extended file with labels is Labels_EconometricsGame2021_ext.xlsx. Look carefully for outliers in both the time on market and the asking price. The asking price is the first set asking price (no ask price revisions data is available).

Writing your report

The finals also allows you to clean up your report, so please do so.

1. Make sure you write in a clear and concise way. Figures and Tables should be easily readable. More text/tables is not necessarily better.
2. It is allowed to mention in tables that you added control variables, without showing all of the coefficients.
3. Try to avoid too many appendices, if any.
4. **YOU ARE NOT ALLOWED TO DEPICT ANY INDIVIDUAL TRANSACTION INFORMATION WITHIN THE REPORT** (a spatial plot of the locations of transactions per year is allowed, as well as carefully constructed heat maps).

Potential questions/issues you might want to address could be (but is not limited to):

- What does the time on market and the asking price measure economically speaking?
- How are house prices, asking prices, and time on market related from a causal perspective and what about the functional form of the relationship.
- Is there also a broader impact on for example transaction volumes, and how does this relate to the time on market?

For the overall report still keep in mind:

- Are there limitations and suggestions for future research?
- In light of your findings what would be the policy implications?

References

Dubé, J., Legros, D., 2016. A Spatiotemporal Solution for the Simultaneous Sale Price and Time-on-the-Market Problem, *Real Estate Economics* 44, 846-877.

Genesove, D., Mayer, C.J., 1997. Equity and Time to Sale in the Real Estate Market, *The American Economic Review* 87, 255-269.