

CERF Fellow Report

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Research Title and Abstract:

Behavioural biases as an indicator for asset value uncertainty

Buyers and sellers of heterogeneous goods in thin markets are brave: Despite the lack of long histories of transactions and the absence of sufficiently high numbers of comparable sales, they still form opinions on values, agree to trade and thereby serve as trailblazers for subsequent transactions. Without hard data and economic models at hand, these pioneering investors are hypothesized to be more susceptible to behavioural biases and price heuristics than investors in markets where more and better information is available.

This project empirically investigates whether behavioural biases are more widespread in markets with relatively high uncertainty regarding fundamental asset values. As some of these biases are easy to observe, their prevalence can serve as a readily available indicator for asset value uncertainty.

Research findings to Date:

The research programme is ongoing and has not yet produced a working paper output.

Links to your research outputs:

n.a.

Publications generated during the CERF fellowship

- Lindenthal, T. “Beauty in the Eye of the Home-Owner: Aesthetic Zoning and Residential Property Values” (2017). *Real Estate Economics*.
- Lindenthal, T., Eichholtz P. and D. Geltner (2017). “Land Assembly in Amsterdam, 1832-2015”. *Regional Science and Urban Economics*.

- Lindenthal, T. (2017). “Estimating Supply Elasticities for Residential Real Estate in the UK“, in: Huang, B., Cao K. and E. Silva (Eds.) *Comprehensive Geographic Information Systems: Socio-economic applications*. Elsevier.

Seminars, conference presentations (since Aug. 2016)

- ASSA/American Real Estate and Urban Economics Association (AREUEA) Annual Meeting, Chicago (Jan. 2017). Presented research paper titled “Beauty in the Eye of the Home-Owner: Aesthetic Zoning and Residential Property Values”

Press releases and other academic activities

- I am co-organiser of the *Cambridge/NUS/Florida Real Estate Finance and Investment Symposium* which will be held at NUS Singapore on September 22/23. This symposium is linked to a special issue at the *Journal of Real Estate Finance and Economics*. I am an editor for this special issue.

Comments

Since the last report in April 2017, I made good progress in several of my research projects:

- My project “Housing Rents, Prices and Expectations in Revolutionary Paris” won a Cambridge Humanities Cambridge Humanities Research Grant (£10,470). This money is used to finance data collection of historical rents and prices in the French national archives (currently ongoing). This initiative augments a research project with Piet Eichholtz and Matthijs Korevaar (both Maastricht University), that has estimated price indices spanning the years 1400-1785 and 1850-1970. The new data will close the gap (1785-1850) and lead to probably the longest time series in property rents ever estimated.
- In a similar vein, I have collected office and residential rents for London, based on lease books from several large portfolio holders. These data are currently transcribed into electronic format by Indian service providers.
- I made good progress on a machine learning project (with Erik Johnson, Alabama). We were able to develop a method to retrieve pictures of each property in the UK from Google StreetView. Previous research using this data source has only focussed on streets or groups of properties. Capturing individual homes allows us to employ machine learning techniques to retrieve otherwise unobserved characteristics about the properties at hand. We e.g. classify the architectural style (for which we created a new training data set using input from Cambridge architects), estimate the level of upkeep, building materials, perceived “beauty”, etc. These factors are then linked to actual transaction prices in hedonic spatial regression models. The estimates show

positive marginal prices for e.g. historical architecture and confirm the economic relevance of “soft” factors like architecture. I have presented the work with NUS Singapore.

- At the CERF lunch seminars, I presented my work on “Time, Memory, and the Saliency of the Reference Point. Amsterdam, 1650-1970”. The working paper has been revised, based on the feedback.