

Review of: "The Residential Property Price Impact of Luas Investments"

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Potential competing interests: No potential competing interests to declare.

Report on the paper entitled "The Residential Property Price Impact of Luas Investments" submitted to QEIOS.

Preliminary note: This report reflects my point of view about what a scientific paper should entail. The author is free to consider my notes either totally or partially; or, otherwise, not to consider them all.

The author studies the impact of the extension of rail network in Dublin on property prices. The subject is relevant in several dimensions of the city's development and may help other stakeholders in their decisional process. However, I think it is not ready to be publicly displayed and needs major revisions. Overall, I find it in a mid-term between a scientific paper and a consulting report. In addition, the author must keep in mind that the paper is for everyone and not for Dubliners only. For example: Does Line B1 extend the green line and Line A1 the red one?

Since the structure of his paper seems correct, I will follow it to mention my concerns. Here are my main suggestions:

1. Abstract: A scientific work does not concern the money allocated to any project. This can appear in conclusions, if necessary. The abstract must briefly tell the problem and the major conclusions.
2. Introduction: When writing a scientific paper, it is mandatory to frame the problem, come to the point where your study positions, and clearly state the research questions you aim to answer. Write what is done around them and what you propose to do and what you achieved. Cite every result you are using, so the reader knows what is backing your approach. You often refer to the concept of DID, but some readers are not familiar with it, including myself. If you are using an approach similar to Meha (2017), as you refer to in page 4, why don't you cite this author? You assume that 20 minutes walking is a short distance: why? Did you see it in some other study? This is quite naïve. I would prefer to use km instead; it is rather more objective. 20 minutes for one person does not mean 20 minutes for any other. You say it never appeared in any work on Irish property price: does it appear for any other? When I moved from page 1 to page 2, it seemed to me that a page was missing in between. You must take additional care in writing. By the way, I should prefer to use "We" instead of "I", and "Our" instead of "My".
3. Related literature: you call attention to overfitting: is it possible to use principal components analysis to reduce the number of variables? I found this reference in internet and hope it is useful for your review: <https://irs.princeton.edu/sites/g/files/toruqf276/files/event/uploads/Hill-Scholz%20Paper%20for%20Princeton%20Conf.pdf>
4. Data: at the end of page 4, it is useless to refer to one-to-one transformation for alphabetical codes to integers. This is

trivial. When you identify properties by the ordered pairs (a,b), where a is the price and b is the distance, what happens when two stations have equal distance to the property? You should clarify this possible ambiguity. Table 1 is displayed in a very unprofessional way. I think 2 decimal places should be enough. Why don't you use the coefficient of variation to have an estimate of (notion about) price variability? In Figure 2, what are the y values? In the last paragraph, explain more clearly the criterion you used. A scientific work is not about "I decided". And if you want to decide by yourself, you should study the sensitivity of your decision, I guess. Another point that seems to me sensible is the property price, which should depend on the date of purchase; for example, a re-sale price is presumably higher than selling price, for comparable properties.

5. I should omit the first paragraph and start from 4.1. Use equation editor for formulas. You have a t-statistic: where it come from? In 4.2, state clearly that hedonic model is the one for f(north, east) (is it? Explain in 4.3 what a Gaussian kernel is, and what a kernel is useful to. In Table 4.3 you give t values, what are the corresponding p-values? How many DF are involved? Did you check the models for multicollinearity?

There are more issues; I think the above are enough to notice my point of view. In summing: the paper needs to be more matured and better presented.