

Report on Bachelor Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University in Prague

Student:	Marek Lipán
Advisor:	Mgr. Tomáš Křehlík, M.A.
Title of the thesis:	Spatial approaches to hedonic modelling of housing market: Prague case

OVERALL ASSESSMENT:

The thesis models the prices and rents of flats in Prague using a variety of spatial econometric models and a unique dataset. Using the estimation results it then provides a practical example of a choice between renting and buying a flat in Prague.

The thesis is a brilliant piece of work that in its scope and complexity far exceeds the requirements for a bachelor thesis. The literature review is exhaustive but not redundant. The econometric methods are complicated but well-explained (and include all necessary validity tests) and range from simple OLS to complex spatial models and geostatistical kriging. In all models and their interpretations the author is fully aware of the possible limitations stemming from data characteristics and answers the vast majority of questions the reader might have.

The contribution of the thesis is apparent – besides estimating spatial and kriging models on Prague reality market that haven't been used before and are shown to perform better than benchmark OLS, the thesis also puts the models to practical use. By calculating net present value the author illustrates the tenure choice and provides comments and sensitivity analysis. The results can also be used for prediction purposes. The practicality and usefulness of the thesis cannot be praised enough.

The thesis is also well written and a pleasure to read with only small mistakes. I have but a few minor questions for the defense:

- How would you interpret the intercept in your models? Does its presence imply that it is more efficient to rent and buy larger flats?
- Is there a way to control for the quality of the flat (for example to include a dummy for completely new flats or a variable indicating the time from last renovation)? Some offered flats are in poor condition and the buyer has to invest significant funds into renovation.
- Is it possible that spatial dependence is heterogenous in various areas of Prague? For example that in city center the dependence is stronger than in the outskirts?

To summarize, I **strongly suggest the thesis for defense and propose the grade „1“.**

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SUMMARY OF POINTS AWARDED (for details, see below):

CATEGORY	POINTS
<i>Literature</i> (max. 20 points)	20
<i>Methods</i> (max. 30 points)	30
<i>Contribution</i> (max. 30 points)	29
<i>Manuscript Form</i> (max. 20 points)	19
TOTAL POINTS (max. 100 points)	98
GRADE (1 – 2 – 3 – 4)	1

NAME OF THE REFEREE: *Mgr. Tomáš Troch*

DATE OF EVALUATION: 31. 5. 2016



Referee Signature