



Record of the dissertation thesis defence

Academic year: 2023/2024

Student's name and surname: Olha Khymych, DiS.
Student's ID: 78074903

Type of the study programme: doctoral
Study programme: Economics and Finance
Study ID: 487439

Title of the thesis: Residential energy consumption in Ukraine: Does energy price matter for energy savings?
Thesis department: Institute of Economic Studies (23-IES)
Language of the thesis: English
Language of defence: English
Supervisor: Mgr. Milan Ščasný, Ph.D.
Date of defence: 13.12.2023 **Venue of defence:** Praha
Attempt: regular

Course of defence: The Defense Committee Chair and Prof. Kocenda welcomed present committee members and all participants who had joined the defense.

They initiated the defense by verbal statements confirming (i) that a satisfactory number of Defense Committee Members were present, (ii) that the student fulfilled all the requirements as listed in the Study and Examination Code of Charles University.

All committee members were introduced and Olha Khymych was asked to present her dissertation thesis. Olha Khymych briefly described the main findings of the dissertation. Afterwards, Olha Khymych focused on the 3rd chapter called "Drivers of energy-efficiency renovations in Ukraine: A case study of the city of Uzhhorod" in more detail.

After reading the referees' (appointed by the Graduation Council) comments, an open discussion followed. During the discussion, Olha Khymych satisfactorily answered all the questions from the audience.

Question: Are people acting rationally given their constraints or is there a reason to think they might change their behavior?
Answer: The decision of the households is driven by high price variation. In Ukraine, the decisions of price changes are usually given in advance. When there was a high increase, households were more interested in lowering their gas consumption. The committee members were satisfied with the answer.

Question: What role do social norms play?
Answer: In the questionnaire, there was a question about whether a professional recommended it to make an investment or the neighbour. Usually, they rely on neighbour recommendations.

The committee members were satisfied with the answer.

Question: Are there any questions that she has not asked?

Answer: She would be more precise on the energy innovations and renovations. She would make more waves of the surveys. If she had more precise information, she might have been able to make a panel. The committee members were satisfied with the answer.

Question: Discussion of subsidy variable and the use of log-regression

Answer: They had a huge amount of zeros. The logarithm roughly approximated the distribution to normal distribution. When they run log-log regression, they can talk about percentage changes. The committee members were satisfied with the answer.

Question: Regarding the subsidy variable - how did she convert missing observations?

Answer: They did not have a lot of data on gas subsidies. First, they took the logarithm and then, they changed the missing observations to 0. They also added another variable - if they did receive the subsidy but did not know the amount and made an interaction variable.

The committee members were satisfied with the answer.

Question: How does the temperature in Uzhhorod look like when she puts it in the graph together with monthly gas use?

Answer: She will add it to a graph. That is a good point. The committee members were satisfied with the answer.

Question: The variation of the main variable of interest, which measures energy efficiency, depends on double-glazed windows. There is almost no choice of single-glazed windows. She should try the regression without double-glazed windows.

Answer: She did that. There was still an effect in other types of innovations/renovations but they had much less data and it made more sense to have the whole dataset.

The committee members were satisfied with the answer.

Question: Why do households with lower education make more renovations?

Answer: Those who have lower education, are also in the lower-income group. They really care about how much they spend, hence, they are more likely to invest in isolating.

The committee members were satisfied with the answer.

Question: Are there any data on the prior conditions of the households? Having double-glazed windows already?

Answer: Unfortunately, they have not asked the prior conditions. In the sample of the city, the trend of double-glazed windows started not long time ago (only last 15 years).

The committee members were satisfied with the answer.

Question: Variable that household is in a noisy neighbourhood. Why did she not use it more?

Answer: She did not check that. But they do not have a lot of data on that so it does not really affect the results.

The committee members were satisfied with the answer.

During the Defense Committee voting, Olha Khymych and the audience left the room, and then committee members voted.

Result of defence:	pass (P)	
Chair of the board:	doc. PhDr. Julie Chytilová, Ph.D. (present)
Committee members:	Ing. Vilém Semerák, M.A., Ph.D. (present)
	PhDr. Lenka Šťastná, Ph.D. (present)
	James Tremewan, Ph.D. (present)
	Souvik Datta, Ph.D.
	Nithin Umapathi, Ph.D.