

Report on Bachelor / Master Thesis

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

Student:	Bc. Jan Stuchlík
Advisor:	Mgr. Barbara Pertold-Gebicka M.A., Ph.D.
Title of the thesis:	Demand for Gas: Evidence from the 2022 Energy Crisis

OVERALL ASSESSMENT (provided in English, Czech, or Slovak):

Please provide a short summary of the thesis, your assessment of each of the four key categories, and an overall evaluation and suggested questions for the discussion. The minimum length of the report is 300 words.

Short summary

The master's thesis by Jan Stuchlík, titled "Demand for Gas: Evidence from the 2022 Energy Crisis," focuses on analyzing the effects of the 2022 energy crisis on Czech households' consumption patterns, emphasizing natural gas and other energy sources. The thesis utilizes income and cross-price elasticity of expenditure shares of various goods, calculated from a quadratic almost ideal demand system. The system's parameters were estimated using household-level data, highlighting significant consumption adjustments by households in response to high energy prices, and showcasing the heterogeneity in households' reactions across socio-economic groups.

Contribution

Stuchlík's work contributes to understanding household responses to energy crises, particularly in income and cross-price elasticity of gas and other energy commodities. It highlights the heterogeneity in reactions among different socio-economic groups. However, I miss the comparison of the results with other studies. Eventhough, there is robustness check using the restricted model I miss the discussion about estimated values. Some of the values indicate very high elasticities (even higher than 100, Table 11).

Methods

A quadratic almost ideal demand system was used to estimate income and cross-price elasticity of demand. Household-level data collection and the iterated feasible generalized nonlinear least squares method were employed for model parameter estimation. The method is appropriate, but I miss the explanation about clustering the households, what does it precisely mean cluster by IDs? Are households similar just because of the ID? What is the consequence when HH is not similar for the estimates? Also, I miss discussion about using the prices indices instead of quantities, what does it mean for the results when using budget shares and price indices instead of quantities?

Literature

The literatrue review part aims mainly of the methodolgy used and few applications. However, there is missing discussion about the feasibility of the results, especially, when compared to other studies. Are the results trustable?

Manuscript form

The thesis is well-structured, starting with an introduction, literature review, theoretical background, data description, methodology, empirical results, and concluding remarks. I would only use shorter paragraphs, sometimes it is too long and reader needs some breaks.

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Overall evaluation and suggested questions for the discussion during the defense

The thesis presents a comprehensive and well-researched analysis. However, it lacks cross-validation with other studies and a clear explanation of some methodological aspects (see above).

Suggested Questions for Defense:

How do you justify the lack of cross-validation with other studies?

Can you elaborate on the 'clusters of HH' and what 'cluster by ID' entails?

Is the number of observations enough to estimate the number of coefficients presented?

The study focus on budget shares with indices instead of quantities, how does this impact the findings?

Overall, while the thesis provides valuable insights, it would benefit from further elaboration on the methodology and comparisons with other studies in the field. In my view, the thesis fulfills the requirements for a master thesis at IES, Faculty of Social Sciences, Charles University, I recommend it for the defense and suggest **a grade C**. The results of the Turnitin analysis **do not indicate significant** text similarity with other available sources.

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

CATEGORY	POINTS
<i>Contribution</i> (max. 30 points)	25
<i>Methods</i> (max. 30 points)	20
<i>Literature</i> (max. 20 points)	10
<i>Manuscript Form</i> (max. 20 points)	16
TOTAL POINTS (max. 100 points)	71
GRADE (A – B – C – D – E – F)	C

NAME OF THE REFEREE: *Matěj Opatrný*

DATE OF EVALUATION: 10/01/2024

Referee Signature

EXPLANATION OF CATEGORIES AND SCALE:

CONTRIBUTION: *The author presents original ideas on the topic demonstrating critical thinking and ability to draw conclusions based on the knowledge of relevant theory and empirics. There is a distinct value added of the thesis.*

METHODS: *The tools used are relevant to the research question being investigated, and adequate to the author's level of studies. The thesis topic is comprehensively analyzed.*

LITERATURE REVIEW: *The thesis demonstrates author's full understanding and command of recent literature. The author quotes relevant literature in a proper way.*

MANUSCRIPT FORM: *The thesis is well structured. The student uses appropriate language and style, including academic format for graphs and tables. The text effectively refers to graphs and tables and disposes with a complete bibliography.*

Overall grading:

TOTAL	GRADE
91 – 100	A
81 - 90	B
71 - 80	C
61 – 70	D
51 – 60	E
0 – 50	F