

Report on Master Thesis

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

Student:	Matěj Teiml
Advisor:	PhDr. Jana Votápková, Ph.D.
Title of the thesis:	Wealth, income, state dependence and other determinants of depression among elderly Europeans

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 thesis takes a novelty approach and discusses the determinants of depression among the elderly on a sample of 345.728 elderly Europeans using the SHARE dataset. Fixed and random effects panel data logit models are employed. The dependent variable is binary. If Euro-D scale reports 4 or more depressive symptoms, the dependent variable takes the value 1 (depressed).

The thesis finds a strong effect of a lagged value (state dependence) on depression of the elderly. Other present-state determinants are also considered including sociodemographic variables, physical activity and health variables. The effects of income and wealth are compared finding out that wealth is a stronger predictor of depression than income being of non-linear nature. Additionally the effects of business cycle and covid are also considered.

Besides, the thesis finds that widowhood adversely affects males more than females, although women face a higher probability of depression.

Contribution

The findings of the thesis enrich social science empirical literature with a novelty approach of including a lagged variable of depression among independent variables in explaining the determinants of depression. Such an approach could easily be applied to any other social science research.

The discussion of the effect of covid contributes to recent empirical literature dealing with the effects of covid as well.

Methods

The thesis employs three different models – 1. the fixed effects panel data logit model which assumes that individual specific effects are time invariant and non-random, dependant on the explanatory variables, 2. static random effects panel data model which assume independent of the individual effect and allow incorporation of time-invariant variables and 3. dynamic random effects panel data model that account for the lagged value of the dependent variable and the initial condition effect. Without accounting for possible correlation between y_{it-1} and α_i , the results would be inconsistent, ie. the time invariant part of the individual effect.

The thesis uses Euro-D scale to form a dependent variable. Using this approach, the author captures also individuals, which by administrative data would be underdiagnosed.

I liked the treatment of outliers through categorical variables

The methodology used is appropriate for the purpose of the thesis and is well described in chapter 4. In the results, I however miss interpretation through average marginal effects. Have them ready for the defense.

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Literature

In the literature review, Matěj starts with stylized facts about depression in general moving towards depression among the elderly. Considerable attention is given to the core determinants of the thesis – state dependence and income and wealth. These sections nicely prepare floor for the analysis of the author. Lastly, other determinants of depression found in the literature are discussed including age, gender, marital status, education, work situation, family structure, health, habits and activity. Regional differences conclude.

The review of literature reads well, it has a logical structure. It is easy for the reader to follow author's thoughts. Enough sources were consulted and were nicely put into the context of Matěj's thoughts.

Manuscript form

The thesis is well structured, the text reads well, it is logical.

Minor fillers, typos and colloquial terms are included, e.g.:

P 8 „... really important.“

P55 „... Langa et al (2004)“ should be in the citep format

Overall evaluation and suggested questions for the discussion during the defense

The thesis is a successful attempt for a scholarly undergraduate work. I contributes to the literature and also potentially to policy decisions. Cooperation with Matěj was fine, although he left most of the work to the last two weeks prior to the submission which was very stressful for me as a supervisor.

In my view, the thesis fulfills the requirements for a bachelor thesis at IES, Faculty of Social Sciences, Charles University, I recommend it for the defense and suggest a **grade A**. The results of the Turnitin analysis do not indicate significant text similarity with other available sources

Questions for the defense:

1. Wealth was found to be a strong predictor of depression among the elderly compared to income. Do you expect results to be the same if the sample covered 18-65 only? I would assume that income loses its power also because the elderly often lack taxable income. Discuss and provide evidence from the literature if possible.
2. The effect of a lagged value (state dependence) is very strong, is it necessary to include additional variables at all? Based on what condition did you decide on additional present-state variables?
3. Most of the variables are dummy variables and thus a correlation matrix is not very meaningful, but still I suspect some level of multicollinearity, particularly between wealth and home ownership. What method was used to decide upon additional variables considering that the model contains a large number of variables?
4. A lagged value of the dependent variable is taken as the initial condition, do you expect that some individuals who suffered depression in the past, but did not report it in the previous period are there in the sample? Are the results likely to be biased by this?
5. I particularly liked the effect of business cycle. In the thesis, we use a specific variable for Covid. During the defense devote a slide to the discussion of the business cycle variables.

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6. On page 45 and 46, the author states that self-perceived health status and subjective well-being are strong predictors of elderly depression, discuss a potential endogeneity problem
7. When comparing FE and RE static models through Hausmann test, H_0 is rejected, thus FE is preferable. Using the same rationale, why was a dynamic FE not used?

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

CATEGORY	POINTS
<i>Contribution</i> (max. 30 points)	29
<i>Methods</i> (max. 30 points)	29
<i>Literature</i> (max. 20 points)	19
<i>Manuscript Form</i> (max. 20 points)	19
TOTAL POINTS (max. 100 points)	96
GRADE (A – B – C – D – E – F)	A

NAME OF THE REFEREE: *Jana Votápková*

DATE OF EVALUATION: *September 6, 2024*

Digitally signed (6.9.2024)
Jana Votápková

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