Report on Bachelor Thesis

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

Student:	Hanbee Yoo
Advisor:	Ing. Lukáš Jordán, M.A.
Title of the thesis:	The Impact of Low Fertility Rate on Economic Growth in South Korea

OVERALL ASSESSMENT:

Short summary

The thesis investigates the impact of fertility rates on economic growth. It focuses on South Korea, which has one of the lowest fertility rates in the world. The thesis builds on the Solow model to develop a model for panel data on 16 regions between 2000 and 2021. It finds that increased fertility rates can impede economic growth; however, the thesis acknowledges that extremely low fertility rates will eventually affect economic growth negatively.

Contribution

The author demonstrates critical thinking and the ability to draw conclusions based on the knowledge of relevant theory and empirics.

The author aims to "provide a deeper understanding of how declining fertility rates influence economic growth". She presents other studies on the topic and their findings; however, it is not emphasised sufficiently what is the author's contribution, is it a novel approach, or addition to the existing knowledge. Hence, I would recommend stressing it out in future studies.

Methods

I appreciated the step-by-step derivation of the theoretical model. For the empirical approach (choice of variables), I would appreciate more details. I would also recommend clearly distinguishing between own ideas and commonly used approaches, e.g. the threshold for urbanity on page 17 (67% or 75th percentile).

Literature

The author demonstrates knowledge of recent literature. I appreciated the comparisons of own results with the existing literature. The section on literature is nicely structured into subsections; however, I would recommend making it even easier for the reader to comprehend (why the information is important and how it is going to be used). For example, on page 3, I was confused by Malthus (1798), who proposed that "population growth has a negative impact on economic growth" but observed a "positive correlation between population growth and economic growth".

On multiple occasions, the year depicted in the graph or referred to in a sentence is formatted as a reference to the data source, which is confusing (see the Manuscript form).

Manuscript form

The thesis is well structured. It refers to graphs, tables and equations well. However, I was often at a loss as to which year the graph or sentence refers. For example, Fig. 2.1. indicates a year only in the source. However, there is no 'World Data (2020)' in the list of references; hence, 2020 seems to be the year displayed in the graph. Similarly unsuitable description is used throughout the text. Most of the graphs and tables would benefit from a detailed note, e.g., Tab. 4.1, which includes abbreviations that have not yet been defined in the text! Generally, I prefer having graphs/tables that are self-explanatory, so I would also include in the note for Tab. 4.1 an explanation of the "expected signs" – the effect on what? And similarly, in all other graphs/tables, so the reader understands them without having to search for the explanation in the text.

I would also recommend reading the text again to eliminate typing errors and repetition of words (e.g., fourth-order births show the fourth-order births show the most dramatic increase). The style of the thesis is appropriate; nevertheless, it would benefit from polishing.

Using LaTeX is great, but some of the references need to be adjusted by hand so the capital letters are indeed capital (e.g., europe, south korea, etc.).

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Overall evaluation and suggested questions for the discussion during the defense

This thesis is of good quality. The author demonstrates an understanding of the topic. The tools used are relevant and adequate to the author's level of study. I would recommend improving the form of the manuscript.

The results of the Turnitin analysis do not indicate significant text similarity with other available sources.

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 B.

Suggested questions for the discussion during the defense:

- 1. What other variables would you like to include in the regressions, given you had the data? Why have you decided not to include the age and sex distribution of the population? How will it change your results if you decide to use real GPD and exclude inflation? Isn't the correlation between some of the independent variables too high?
- 2. Does it make sense to include lags for some of the variables?
- 3. What is the current sex ratio in South Korea? What policies were implemented (in the 1990s) to "avoid gender imbalances"? What is the situation in comparison to China?

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

CATEGORY		POINTS
Contribution	(max. 30 points)	26
Methods	(max. 30 points)	27
Literature	(max. 20 points)	18
Manuscript Form	(max. 20 points)	14
TOTAL POINTS	(max. 100 points)	85
GRADE (A – B – C – D – E – F)		В

NAME OF THE REFEREE: Mgr. Lenka Šlegerová

DATE OF EVALUATION: 27. 8. 2024

Digitally signed (27. 8. 2024)

Lenka Šlegerová

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	В
71 - 80	С
61 – 70	D
51 – 60	E
0 – 50	F