Report on Master Thesis

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

Student:	**Šimon Juhás**
Advisor:	**Prof. Roman Horváth, Ph.D.**
Title of the thesis:	**Transmission of Financial Shocks to and from the Euro Area: A GVAR Approach**

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

Short summary

The diploma thesis submitted by Šimon Juhás presents an analysis of international transmission of financial shocks using GVAR model. The model is estimated using standard Matlab package on data ranging from 1999 to 2023. GVAR models are not discussed in detail in the econometric courses at the IES, but their utilization is facilitated by nicely documented Matlab toolbox. The most robust results of the paper are that the financial shock has adverse effects on equity prices and on GDP growth.

Contribution

In comparison to the earlier literature, two novelties are highlighted: the use of the Composite Indicator of Systemic Stress (CISS), and the inclusion of shadow rates in the GVAR model. This is an adequate extension for a master's thesis. Nevertheless, to sharpen the contribution, it might be interesting to compare the outcomes of the model with and without the shadow rate to show that this extension matters. Also, a relation to the more recent literature would have been welcomed.

Methods

As noted above, the GVAR toolbox is used to estimate the global VAR and derive the generalized impulse responses. While this is a fairly standard approach, I believe that the author should provide a deeper discussion on identification of structural shocks and their effects, because the GIRFs are just one of the options that can be used for identification of structural shocks. Chudik and Pesaran in their survey published in the Journal of Economic Surveys indicated that few papers using sign restrictions as an alternative already, and alternative approaches appear in the literature as well.
The methodology seems to be applied correctly, nevertheless, the author shall be explicit about transformations of variables for VAR modeling (maybe I overlooked it in the text), and add information about confidence intervals (1SD or 2SD) to each figure (I presume 95 percent intervals are used, but I have not found this information in the text, again, I might have overlooked it).

Literature

The literature review reads nicely. However, with the exception of two technical papers, more recent papers published since 2017 do not appear in the reference list.

Manuscript form

The manuscript form corresponds to the standards. As noted above, I would appreciate informative notes about model specifications just below each figure; this facilitate orientation of the reader within the text.
The results of the Turnitin analysis do not indicate significant text similarity with other available sources.

Overall evaluation and suggested questions for the discussion during the defense

Šimon Juhás wrote a decent thesis, meeting the standards for solid thesis at IES. Most of my critical remarks stated above shall be considered as suggestions for potential improvements.
Thus, I recommend the thesis for defense. When comparing this thesis with others, I suggest a grade of B, depending on the thesis defense, namely due to missing reflection of the more recent literature.

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My suggested questions for the defense are the following:

- To my knowledge, most studies on international spillovers suggest a prominent role of shocks originating in the United States. What do you think makes your results different? To what extent is this caused by the relatively large correlation of CISS indicators, suggested by Figure1?

- Would it be possible to estimate the model with monthly data? What are the pros and cons of using quarterly data compared to monthly data?

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

CATEGORY		**POINTS**
Contribution	*(max. 30 points)*	22
Methods	*(max. 30 points)*	24
Literature	*(max. 20 points)*	16
Manuscript Form	*(max. 20 points)*	19
TOTAL POINTS	*(max. 100 points)*	**81**
GRADE	**(A – B – C – D – E – F)**	**B**

NAME OF THE REFEREE: ***Jaromír Baxa***

DATE OF EVALUATION: ***26.8.2024***

Jaromír Baxa

Digitálně podepsal Jaromír Baxa
Datum: 2024.08.27 11:41:37 +02'00'

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**