

Report on Bachelor / Master Thesis

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

Student:	Michal Sabol
Advisor:	Mgr. Vojtěch Pištora
Title of the thesis:	Accuracy of Leading Economic Indicators

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

The thesis deals with the topic of nowcasting and forecasting cyclical economic variables using so-called leading economic indicators. The author discusses different methods of measuring their predictive power and provides empirical evidence for several currently available leading indicators in the case of the Czech Republic and Germany. The topic is well-defined and relevant. The structure of the text is clear and logical.

It is obvious that the main focus was on the empirical part of the thesis which is extensive and mostly well done work. The author uses adequate time series econometric methods and discusses the results in detail.

The introductory and methodological part is less elaborated. Author's work with literature shows some mistakes common to many bachelor theses (e.g. many direct/verbatim quotations). The text about business cycle in the introductory/motivation part lacks references to even basics of business cycle theory. The author jumps straight into decomposition of cyclical economic series.

The thesis would also benefit from citing more existing papers on the same topic. It would also make it more clear what is the main contribution of the thesis.

Besides these general comments I would like to point out several specific issues:

- In the empirical part, the time series of the variable in focus (e.g. GDP) are detrended. In the methodological part, the author correctly identified several methods for doing that. Later on, he chooses one of them – namely the HP-filter – without any discussion or justification. The HP filter has several well-known drawbacks.
 - o Assumption of normality. The filter assumes the deviation of the series from the trend is a normally distributed random noise.
 - o The results might be highly sensitive to the choice of lambda (signal-to-noise) parameter. The author's choice of lambda is arbitrary (even though this is the case of many other authors) and it would render the results more robust if other values of lambda were experimented with as well.
 - o End-point bias and real-time application /operationalization of the approach. The series that is detrended by HP filter has to be "finished". Addition of new observations changes the past observations of the detrended series. Even though I feel that the author's conclusions (about the indicator predictive power) are still valid I missed some discussion how to operationalize the results in real-time applications where future observations of the series (needed for detrending the last observation) are unknown.

These issues are not discussed in the thesis and I believe that the choices of the methods should be better explained and defended. I suggest the author can defend/discuss these issues during the defense.

Besides that I have some minor comments:

- Hypothesis test is not a proof. We should avoid using the term "prove" in context of hypothesis testing.
- The manuscript format might be improved. For instance the font used for table titles is really small.
- While the overall level of language is good, the thesis would benefit from proofreading.

Overall, I find the thesis well done. I recommend it for defense and suggest the grade **"good"**.

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

CATEGORY		POINTS
Literature	(max. 20 points)	10
Methods	(max. 30 points)	24
Contribution	(max. 30 points)	22
Manuscript Form	(max. 20 points)	15
TOTAL POINTS	(max. 100 points)	71
GRADE	(1 – 2 – 3 – 4)	2

NAME OF THE REFEREE: Václav Hausenblas

DATE OF EVALUATION: 1.6.2016


Referee Signature

EXPLANATION OF CATEGORIES AND SCALE:

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

Strong Average Weak
20 10 0

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.*

Strong Average Weak
30 15 0

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.*

Strong Average Weak
30 15 0

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.*

Strong Average Weak
20 10 0

Overall grading:

TOTAL POINTS	GRADE		
81 – 100	1	= excellent	= výborně
61 – 80	2	= good	= velmi dobře
41 – 60	3	= satisfactory	= dobře
0 – 40	4	= fail	= nedoporučuji k obhajobě