Report on Bachelor / Master Thesis

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

Student:	Vojtěch Kania
Advisor:	PhDr. Mgr. Jana Votápková
Title of the thesis:	Relationship between consumption of cigarettes and alcohol in the Czech Republic

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

Please provide your assessment of each of the following four categories, summary and suggested questions for the discussion. The minimum length of the report is 300 words.

Contribution

The thesis empirically analyses links between consumption of alcohol and cigarettes (as a proxy for overall tobacco consumption given the low consumption of other tobacco products) in the Czech Republic in the time period 1955-2016. Based on findings from previous studies, Vojtěch's presumption for the study is that the two product categories are complements, i.e. that their consumption would follow a similar path over time, and hence his hypothesis for testing is that the two time-series are cointegrated. He provides good reasoning why understanding cointegration between alcohol and tobacco consumption is essential e.g. for designing antismoking laws, particularly in the context of the Czech Republic, where consumption of both alcohol and tobacco is at a relatively high level. On the other hand, the introductory section should contain more information on the reason behind cointegration tests as the analytical method of choice. Specifically, how can results of cointegration tests be used in practice? Are there other methods that could be applied? Some further information on the motivation behind cointegration tests is in Section 3, but it could be moved forward.

Overall, the thesis is well written both in terms of language (English) and structure. Vojtěch manages to draw reader's attention by explaining why alcohol and tobacco consumption are important from the economic and health perspective and why findings of the presented study may be beneficial for further analysis. The text reads well and the formatting (in LaTeX) is clear and consistent, except for some presentation of the results (see below).

In the first part of the thesis, Vojtěch provides a detailed summary of the detrimental effects of alcohol and tobacco consumption at the population level, both in terms of monetary and health impacts. He follows with an extensive description of alcohol and tobacco regulations at the national and international level over the past decades, arguing that they substantially differed in the last 15 years. Here Vojtěch shows his ability to work with scientific literature and present facts in a clear, logically structured text. At the same time, Section 2 would benefit from more signposting and an introduction. In particular, it is not immediately clear what the aim of the section is or how it is linked to the main analysis. It would also be helpful to present the numeric information in forms of graphs, rather than tables, which would allow easier assessment of the trends over time, as well as a combination of multiple time-series in a single figure.

The second, empirical part of the thesis benefits from a comprehensive methodological overview introducing and explaining relevant statistical and econometric methods. This part is sufficiently detailed yet clearly arranged. The review is followed by a description of the dataset, time-series of alcohol and cigarette consumption in the Czech Republic in the 1955-2016 period obtained from the Czech Statistical Office. While the author uses a reliable data source and provides a description of the trends, the section would greatly benefit from more explanation and/or comparison of the trends to other countries as the time-series show substantial changes in trends over time without any apparent reason. It would be useful to link the descriptive statistics to the summary of regulation from Section 2.

Following baseline augmented Dickey-Fuller and KPSS tests, which are rather inconclusive regarding existence of a unit root, Vojtěch runs additional tests controlling for structural breaks in the data. The

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additional tests provide evidence of a unit root for both series, which allows testing for cointegration. He also tested both series for unit root when considering only the 1955-1989 period. However, the Engle-Granger and Johansen trace tests did not suggest that the series would in fact be cointegrated. The study's conclusion thus reduces to a suggestion that any analysis using consumption of alcohol and/or cigarettes should be aware of the unit root in both series in order to not obtain biased and/or spurious results.

Besides minor grammar errors and typos ("generely", "sumpsample" and others), my main suggestion is to restructure the results, both visually (the tables are rather unclear and the graph is missing description of axes) and structurally – many of the tables could be moved to an appendix to improve the text flow. In addition, there could be more explanation of what we see in the tables with results – how do the conclusions link to the coefficients or test statistics?

Mindful of the minor flaws listed above, I believe that the thesis is of a very good standard and meets all the criteria for the **highest grade** in case of a successful defence.

Suggested questions for the defence:

- Have you also considered other data sources? E.g. the OECD data on alcohol consumption in the Czech Republic (https://data.oecd.org/healthrisk/alcohol-consumption.htm) show somewhat different trend than what is shown in Figure 4.1. What may be causing the differences?
- Consumption of cigarettes varied considerably in the 1990-2000 period according to the presented data as it dropped by more than 400 pieces per year (>15%) or increased by more than 500 pieces per year (>30% y-o-y). What is the reason for this?
- Assume that you had individual-level data on consumption of alcohol and tobacco over a period of one year for a sufficient number of randomly selected individuals in the Czech Republic. Would such data help you to determine if your hypothesis is correct? If so, why?

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

CATEGORY		POINTS
Contribution	*(max. 30 points)*	24
Methods	*(max. 30 points)*	29
Literature	*(max. 20 points)*	20
Manuscript Form	*(max. 20 points)*	18
TOTAL POINTS	*(max. 100 points)*	**91**
GRADE	**(A – B – C – D – E – F)**	**A**

NAME OF THE REFEREE: Mgr. Ing. Martin Štěpánek M.A

DATE OF EVALUATION: 2. 6. 2018

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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.*

Strong	*Average*	*Weak*
30	*15*	*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*

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*

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