IMESS DISSERTATION

Note: Please email the completed mark sheet to Year 2 coordinator (jiri.vykoukal@post.cz)

Please note that IMESS students are not required to use a particular set of methods (e.g. qualitative, quantitative, or comparative) in their dissertation.

Student:	Xueyan Shi
Dissertation title:	Analyzing the Impact of Czech Economic Development on Carbon Emissions: VAR Model Approach

	70+	69-65	60-61	59-55	54-50	<50
	A	B	C	D	E	F
Knowledge *Knowledge of problems involved, e.g. historical and social context, specialist literature on the topic. Evidence of capacity to gather information through a wide and appropriate range of reading, and to digest and process knowledge.*				x		
Analysis & Interpretation *Demonstrates a clear grasp of concepts. Application of appropriate methodology and understanding; willingness to apply an independent approach or interpretation recognition of alternative interpretations; Use of precise terminology and avoidance of ambiguity; avoidance of excessive generalizations or gross oversimplifications.*					x	
Structure & Argument *Demonstrates ability to structure work with clarity, relevance and coherence. Ability to argue a case; clear evidence of analysis and logical thought; recognition of an argument's limitation or alternative views; Ability to use other evidence to support arguments and structure appropriately.*					x	
Presentation & Documentation *Accurate and consistently presented footnotes and bibliographic references; accuracy of grammar and spelling; correct and clear presentation of charts/graphs/tables or other data. Appropriate and correct referencing throughout. Correct and contextually correct handling of quotations.*					x	
Methodology *Understanding of techniques applicable to the chosen field of research, showing an ability to engage in sustained independent research.*				x		

ECTS Mark:	E/53	**Charles Mark:**	E	**Marker:**	František Čech
Deducted for late submission:			*No*	**Signed:**	
Deducted for inadequate referencing:				**Date:**	5 September 2023

MARKING GUIDELINES

A (UCL mark 70+) = A (Charles mark 91-100 - excellent): *Note: marks of over 80 are given rarely and only for truly exceptional pieces of work.*
Distinctively sophisticated and focused analysis, critical use of sources and insightful interpretation. Comprehensive understanding of techniques applicable to the chosen field of research, showing an ability to engage in sustained independent research.

B (UCL mark 69-65) = B (Charles mark 81-90– very good)
C (UCL mark 64-60) = C (Charles mark 71-80 – good): A high level of analysis, critical use of sources and insightful interpretation. Good understanding of techniques applicable to the chosen field of research, showing an ability to engage in sustained independent research. 65 or over equates to a B grade.

D (UCL mark 59-55) = D (Charles mark 61-70 – satisfactory)
E (UCL mark 54-50) = E (Charles mark 51-60 – sufficient):
Demonstration of a critical use of sources and ability to engage in systematic inquiry. An ability to engage in sustained research work, demonstrating methodological awareness. 55 or over equates to a D grade.

F (UCL mark less than 50) = F (Charles mark 0-50 - insufficient):
Demonstrates failure to use sources and an inadequate ability to engage in systematic inquiry. Inadequate evidence of ability to engage in sustained research work and poor understanding of appropriate research techniques.

Please provide substantive and detailed feedback!

Comments, explaining strengths and weaknesses (*at least 300 words*):

The presented thesis focuses on the impact of economic growth on carbon dioxide emissions, using several macroeconomic variables such as GDP per capita, industrial structure, and foreign trade dependence. It analyzes these indicators' theoretical basis and influences mechanisms on carbon emissions. Data from 1990-2019 visually represents the relationship between economic growth and emissions, supported by empirical evidence and a VAR model. The results align with the environmental Kuznets theory, highlighting the importance of industrial structure in curbing carbon emissions, ultimately showing that economic growth can mitigate CO2 emissions.

The presented thesis includes a basic literature review. The work with the literature and referencing could be improved; for example, some parts such as sections 2.2.2 or 2.2.3 concentrate on a single source and explain the concepts in textbook style.

The methods and concepts used in a thesis are standard and well-established in the literature (vector autoregression, impulse response, …). The description of the methods could be improved – the notation in chapter 6.1.4 can be confusing as the same signs are used for different expressions (for example first sentence on p.45). The results of the analysis are presented as copy-pasted tables from statistical software and contain nonstandard signs so it is hard to evaluate accuracy of the results. Some results in the text contradict those in tables, e.g. Table 10 and comments below the table. It is not fully clear to me why the author has chosen VAR when only a single dependent variable is presented in the thesis, as described in Table 4.

The manuscript form and the style of the thesis could be greatly improved. The whole thesis would benefit from careful proofreading as it contains quite a lot typos, there are unfinished sentences (e.g. p 12, section 2.2.4, second line from the bottom), some sentences are very hard to read and follow (e.g. p.18 second paragraph sentence starting by "Zhang (2020) ….", some statements are contradictory (e.g. p.35 - Czech coal reserves are third biggest in the world and fifth in Europe). Also, the format of some chapters is very nonstandard for the master thesis - for example, why the structure of the thesis is summarized in Chapter 3 and not in the Introduction? Further, the Chapter 3.2 and 3.3 contains numbered paragraphs explaining what is going to be done – it seems to me as some sort of proposal of the project, not the actual thesis. The work with references could also be improved –Chapter 4 contains lots of interesting information, but none is properly referenced. Some tables could add greater value when plotted as figures , e.g., Table 1, 2. While the choice of the statistical software used for analysis is important, I do not think that a more than a half-page description of why the Stata was chosen is adequate for a master thesis.

Overall, while the presented thesis deals with an interesting topic, I do not think the author fully used its potential. In my view, there is considerable space for improvement from both the methodological and visual side.

Specific questions you would like addressing at the oral defence (*at least 2 questions*):

During the defence, the student should discuss the difference between Figures 6 and 7 - namely the role of the coal - from Figure 6 it seems that coal is the most important energy source while in Figure 7 it seems almost the least important.

Given the results presented in Chapter 6.2.9, the student should also explain why the effect of GDP per capita is persistent (or why it is not) on the carbon emission and demonstrate it on Figure 15. The student should also discuss the statistical significance of the impulse responses and elaborate on the implications it have on results.