

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:	Zhijing Huang
Dissertation title:	The impact of FDI inflows on CO2 emissions in EU countries

	70+	69-65	60-61	59-55	54-50	<50
	A	B	C	D	E	F
Knowledge <i>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.</i>	96					
Analysis & Interpretation <i>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 generalisations or gross oversimplifications.</i>	95					
Structure & Argument <i>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.</i>	95					
Presentation & Documentation <i>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.</i>	95					
Methodology <i>Understanding of techniques applicable to the chosen field of research, showing an ability to engage in sustained independent research.</i>	93					

ECTS Mark:	A/75	Charles Mark:	A/95	Marker:	Jaromír Baxa
<i>Deducted for late submission:</i>			<i>No</i>	Signed:	
<i>Deducted for inadequate referencing:</i>				Date:	

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*):

Zhijing Huang delivered an interesting, well-thought and well-elaborated thesis that provides an analysis of the dynamic effects of FDI on CO2 emissions in Europe. The thesis relies on the framework of panel regression, discusses potential endogeneity using GMM, which is well in line with the current literature, and leads to interesting conclusions. It is found that FDI increase overall emissions, but when the consumption-based emissions are considered, the effect is opposite. Second, the increase of CO2 emissions can be avoided via improved institutional quality, which is shown using regression with moderator variable – this is the appropriate approach for these purposes. While these results are intuitive, it is always good to have a quantitative, data-driven support for them, because it happens quite often that something that is intuitive, has just a limited support in the real-world data, if anything at all.

The literature discusses the main hypotheses related to the impact of FDI on the host-country emissions. The data are relevant, although I would perhaps skip the visual analysis, where not much can be seen, actually.

In the methodological part, the author finds that there is no cross-sectional dependence in the data, using the Pesaran CD test. This is interesting, is this something commonly found in the literature on the dynamics of CO2 emissions in Europe? I would expect the cross-sectional dependence would be there, given the degree of synchronization of the business cycle in Europe.

The GMM seems to be well implemented as well, at least the Hansen/Sargen statistics does not indicate any problem. Nevertheless, the author does not report the number of instruments, while it is known that for consistency of the GMM estimator, the number of instruments k shall be smaller than the number of observations N . Due to the construction of the GMM estimator, the instruments proliferate quite quickly with increasing number of lags, so the situation when $N > k$ can happen quite quickly. Note that the number of lags used as instruments isn't reported as well. I presume a stata package `xtabond` has been used for the calculations, one needs to select printing those specifications manually in exported tables.

I appreciate that reasonable robustness analysis appears in the thesis as well.

Perhaps one issue comes to my mind when seeing the final output. In the moderated regression, the results for the moderator effect of institutions are quite the same as the effect of the real GDP. This is perhaps because GDP and institutional quality are highly correlated. Therefore, some authors (including myself) occasionally use the concept of the relative institutional quality in this concept. Let me suggest my recent paper, co-written with Michal Paulus, in *Empirical Economics* to learn more about this issue.

Minor remark:

p.8 A decrease of emission in 2020 is observed – right, but this was driven by economic slack due to the pandemic, the trend reversed quickly in 2021, at least as far as I remember. Anyway, one shall be careful when comparing anything with the year 2020.

Overall, I recommend the thesis for the defence and I suggest grade A.

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

- 1) The author mentions three alternative hypotheses on the effects of FDI on the CO2 emissions in the host country. Which of those hypothesis seems to be most relevant given the results presented in this thesis?
- 2) Do you think the results will be the same across EU countries or there might be any systematic heterogeneity?
- 3) Do you have any guess or knowledge from the literature how do FDIs contribute to CO2 emissions in your home country?