

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 CO ₂ emissions in EU countries

	70+	69-65	60-64	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>		66				
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>		65				
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>	80					
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>	80					
Methodology <i>Understanding of techniques applicable to the chosen field of research, showing an ability to engage in sustained independent research.</i>	75					

ECTS Mark:	A/73	Charles Mark:	A/91	Marker:	Magdalena Firtova
<i>Deducted for late submission:</i>			No	Signed:	
<i>Deducted for inadequate referencing:</i>				Date:	September 4 th , 2024

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.

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

The thesis represents a very solid, relevant, and current study that demonstrates a reasonable understanding of the relationship between FDI and CO₂ emissions. It presents a logical argument that FDI can help introduce low-carbon technologies in the EU, thus contributing to reduced consumption-based CO₂ emissions. It takes an innovative approach by incorporating institutional quality and economic growth as moderating variables and explores a consumption-based approach to emissions. The author demonstrates a solid ability to gather and integrate relevant theoretical literature. The text is very well presented, with accurate referencing and effective visualization of data.

Still, there are a few aspects where the thesis could be enhanced:

The contextualization in the interpretation of the results is relatively shallow and occasionally based on outdated sources. For example, the author observes that “highly economically developed countries such as France and Germany have more stringent environmental enforcement standards” (p. 52) and refers to Bluffstone and Sterner (2006). Given that the selected time period spans from 2000 to 2020, more current comparative data from the European Environment Agency or OECD might more accurately reflect the state of environmental enforcement. Similarly, the reference to Rennings (2000) for the latest production technologies, such as electric vehicles and energy-efficient appliances, appears outdated and potentially irrelevant in the context of current technological developments (p. 74).

The final discussion introduces the distinction between production-based and consumption-based approaches to measuring CO₂ emissions. While the production-based emissions limits are well articulated, the discussion on the consumption-based approach lacks sufficient depth and, in some cases, oversimplifies complex trends and relationships. Specifically:

- For instance, the claim that carbon footprint labeling on organic food has “effectively reduced consumption-based CO₂ emissions” (p. 75) is not well-supported by direct evidence. Rondoni and Grasso (2021) might discuss consumer attitudes or theoretical benefits of carbon footprint labeling, but they do not establish that such labels are commonly used or are a regulatory standard across the EU. While raising consumer awareness might encourage people to choose lower-carbon options, proving that labeling directly leads to a measurable drop in consumption-based CO₂ emissions would need specific evidence.
- Similarly, the statement that “The adoption of these high-efficiency appliances not only reduces each household's carbon footprint but also encourages enterprises to improve their products' environmental standards in order to improve competitiveness” (p. 75) overstates the impact without providing specific evidence that this has “significantly reduced CO₂ emissions at the consumption end.”
- Referring to Fragkiadakis, Fragkos, and Paroussos (2020), the thesis states that “between 2000 and 2020, foreign companies in the EU adopted advanced low-carbon technologies to produce goods locally, replacing high-carbon imports” (p. 76). However, the article actually highlights the significant adoption of these technologies in the EU, driven by public and private R&D investments, and focuses more on the period around the adoption of the Green Deal, not the entire suggested timeframe. It discusses the overall policy direction of promoting innovation and competitiveness in low-carbon sectors, rather than specifically crediting foreign companies within the EU
- The argument that “foreign enterprises that invested in manufacturing bases in Germany used advanced technologies to produce photovoltaic components and wind power equipment (Wüstenhagen and Menichetti, 2012). Such environmentally friendly products that would have otherwise to be imported from other countries, have been effectively replaced by locally produced alternatives” (p. 76) is again based on outdated resource. In recent years, Germany and the EU have not been major producers of photovoltaic components like solar panels. Production has increasingly shifted to countries with lower manufacturing costs, such as China. As a result, the vast majority of PV components used in the EU are now imported from China. While Germany did have a strong domestic PV manufacturing sector in the early 2000s, the market has since been overtaken by cheaper imports.

While the thesis acknowledges differences among EU countries in economic factors like capital investment and labor force participation, it doesn't fully examine how these differences might affect the interpretation of the results. For example, varying responses to environmental regulations or differences in economic structures across countries could impact the estimated links between FDI and CO₂ emissions. Section 2.6 effectively addresses potential biases with multiple tests, which strengthens the study's reliability, but the discussion on these differences could be more detailed and nuanced.

The thesis does not provide a comprehensive discussion of potential data limitations. For instance, while the thesis rightly introduces institutional quality as a moderating factor, it would benefit from a discussion about the possible limitations of the Heritage Foundation index as the best measure of institutional quality. While the Heritage Foundation's Index of Economic Freedom is widely recognized, its ideological orientation with a focus on free-market principles and economic deregulation could bias the research results, potentially leading to an overemphasis on the benefits of economic freedom while underrepresenting critical aspects of governance. This index is less commonly used in environmental studies and climate policy research compared to other indices like, for example, the Worldwide Governance Indicators (WGI), which include broader governance metrics relevant to environmental management.

Additionally, the thesis treats the whole period from 2000 to 2020 as if it were uniform, without explaining why this time frame was chosen. It also doesn't address significant changes, like when different countries joined the EU, which could have affected the analysis. Although balanced panel data were selected to address this issue, the reasoning behind this choice could be made clearer.

The text is generally well-written, but in a few instances, especially in the introduction, the language could be more precise. The two research questions would particularly benefit from greater specificity and more precise formulation. For example, including the time period as well as the type of CO₂ emissions may better introduce the reader to the content from the early introduction.

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

1. Your thesis addresses the impact of FDI on CO₂ emissions in the EU from 2000 to 2020, but there are several limitations highlighted. Can you discuss these limitations and explain how they might have affected your findings?
2. Please engage with potential critiques of using consumption-based emissions. Given the complex global supply chains involved in production, how do you ensure that the consumption-based emissions data accurately captures all the embedded emissions from imported goods?