

BACHELOR'S THESIS EXAMINER REPORT
PPE – Bachelor's in Politics, Philosophy and Economics
Faculty of Social Sciences, Charles University

Thesis title:	The Influence of Exogenous Price Shocks on the Functioning and Efficiency of Environmental Instruments
Student's name:	Til Gosh
Referee's name:	Jakub Tesař

Criteria	Definition	Maximum	Points
Major Criteria			
	Contribution and argument (quality of research and analysis, originality)	50	38
	Research question (definition of objectives, plausibility of hypotheses)	15	12
	Theoretical framework (methods relevant to the research question)	15	12
<i>Total</i>		80	62
Minor Criteria			
	Sources, literature	10	9
	Presentation (language, style, cohesion)	5	4
	Manuscript form (structure, logical coherence, layout, tables, figures)	5	3
<i>Total</i>		20	16
TOTAL		100	78

Plagiarism-check (URKUND) match score:

The plagiarism check did not find any substantial overlap with existing sources.

Reviewer's commentary according to the above criteria:

The thesis focuses on the emission trading scheme of the European Union. It reviews the existing literature regarding this scheme's effects on impacted industries. It proposes modifying the general ETS scheme to incentivize companies for higher emission reductions accompanied by enhanced productivity. The thesis concludes by discussing some limitations of the model.

The thesis is theoretically oriented. It builds on the existing literature to understand the effects of the ETS scheme and asks "whether a market-based subsidy ... can contribute to achieving the ambitious climate targets without burdening the regulated companies too much" (p.2). The author further delineates two hypotheses addressed in chapters one and two (numbering of the author). However, it is not clear how those hypotheses relate to the central research question.

The method of the work is unclear; for this type of thesis, the author should specify, e.g., the fundamental constraints of the model and what method will be used to assess its effectiveness (e.g., the costs of the proposed mechanism compared to alternatives. It should also be stressed that a literature review is not a research method; it is a building block (i.e., first step) of a valid research design, but a proper work method should follow.

Throughout the thesis, the author shows a good understanding of the EU-ETS system and related concepts. Somehow limited is the review of the pollution haven debate, which, since the 1970s, studied a similar problem and already brought a great deal of empirical evidence.

The author then proposes modifying the ECT scheme by introducing market-based subsidies, which should incentivize companies to continue abating emissions above the efficient level. The construction of the model seems valid, and the expected effect is plausible. However, there are several loose parts that the author does not sufficiently explain. Mainly, why the model works with exactly $s=p^*$ level of subsidy (what would be the minimal subsidy for the proposed mechanism to work?) Further, some assumptions of the model seem to be unrealistic, like that "environmental damage is known to the regulating authority [which] can quantify it accurately" (p.30) or that "European industrial companies do not pursue any strategic behavior" (p.35). Careful readers can also find some imprecise conclusions ("a company will decide to abate emissions above the efficient level if the additional benefit is greater or equal to the additional cost" (p. 39) – why should the company continue with extra effort if the strategy leads to equal benefits?).

In my view, the main limitation of the proposed model is that it does not consider subsidies as extra costs of the scheme. The sources originating from auctions are already used for financing other programs (dominantly climate-mitigating strategies), so if those funds are proposed to be used elsewhere, we should probably compare the effectiveness of their current use with the proposed effects. Yes, subsidies may work, but this would (at least partially) be true for any subsidies that promote research for alternatives. From the thesis, we do not know what is new about this type of subsidy and how it compares to alternatives.

As regards the formal requirements of the bachelor thesis, the text is written and structured well, with proper citations guiding the argument. Somehow surprising are the introduction and methodology sections, which do not feature as thesis chapters and precede the main text. The figures serve the argument well, but their readability is limited. There should be no decimals on the y-axis (energy costs), and guiding lines could delineate respective years (exact dates, on the other hand, are irrelevant).

Proposed grade (A-B-C-D-E-F): C

Suggested questions for the defence are:

- What is the difference between the concepts of carbon leakage and pollution haven?
- Why does the proposed model work with exactly $s=p^*$ level of subsidy (what would be the minimal subsidy for the proposed mechanism)?

I recommend the thesis for final defence.

Referee Signature