Seminar (MW86): Environmental Economics

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Content: This course provides an introduction to Environmental Economics. More specifically, it is centered on the empirical examination of environmental policy interventions. With the increasing concern about the environmental damage caused by economic activities, governments globally are introducing policies aimed at mitigating these adversities. These policy measures include emission controls, subsidies for green energy technologies, and promotion of the adoption of alternative fuel vehicles, among others. Using a range of empirical research papers, this course will explore the various impacts of such environmental policies from economic, environmental, and societal dimensions.

An introductory lecture will be held at the beginning of the semester, where a brief overview of the theoretical background and different strands of research will be provided. Based on the listed topics and core readings, students are expected to choose their own topic to give a 20-minute presentation and to write a term paper no longer than 15 pages. More than one student can work on each topic below with different focuses. Proposals for alternative topics that are related to the subject of this seminar are also welcome.

Target Group: Master students in Economics or Business Administration

Prerequisite: Completion of at least one introductory econometrics course and one microeconomics course during their studies

Language: English

Examination Process:: Presentation(30%), term paper(60%), class participation(10%)

Credit points: 2 SWS (4 ECTS)

Topics

Emission Control Policies:

- Andersson, J. J. "Carbon taxes and CO2 emissions: Sweden as a case study". In: *American Economic Journal: Economic Policy* 11.4 (2019), pp. 1–30
- Bushnell, J. B. and Wolfram, C. D. "Enforcement of vintage differentiated regulations: The case of new source review". In: *Journal of Environmental Economics and Management* 64.2 (2012), pp. 137–152
- Curtis, E. M. "Who loses under cap-and-trade programs? The labor market effects of the NOx budget trading program". In: *Review of Economics and Statistics* 100.1 (2018), pp. 151–166

Green Energy Technology Promotion:

- Gerarden, T. D. "Demanding innovation: The impact of consumer subsidies on solar panel production costs". In: *Management Science* (2023)
- Jack, K. and Smith, G. "Charging ahead: Prepaid metering, electricity use, and utility revenue". In: *American Economic Journal: Applied Economics* 12.2 (2020), pp. 134–168

- Rexhäuser, S. and Löschel, A. "Invention in energy technologies: Comparing energy efficiency and renewable energy inventions at the firm level". In: *Energy Policy* 83 (2015), pp. 206–217

Adoption of Alternative Fuel Vehicles:

- Clinton, B. C. and Steinberg, D. C. "Providing the Spark: Impact of financial incentives on battery electric vehicle adoption". In: *Journal of Environmental Economics and Management* 98 (2019), p. 102255
- Kahn, M. E. "Do greens drive Hummers or hybrids? Environmental ideology as a determinant of consumer choice". In: *Journal of Environmental Economics and Management* 54.2 (2007), pp. 129–145
- Reanos, M. A. T. and Sommerfeld, K. "Fuel for inequality: Distributional effects of environmental reforms on private transport". In: *Resource and Energy Economics* 51 (2018), pp. 28–43

Economic and Social Implications:

- Holland, S. P. et al. "Are there environmental benefits from driving electric vehicles? The importance of local factors". In: *American Economic Review* 106.12 (2016), pp. 3700–3729
- Naegele, H. and Zaklan, A. "Does the EU ETS cause carbon leakage in European manufacturing?" In: *Journal of Environmental Economics and Management* 93 (2019), pp. 125–147
- Allcott, H. and Kessler, J. B. "The welfare effects of nudges: A case study of energy use social comparisons". In: *American Economic Journal: Applied Economics* 11.1 (2019), pp. 236–276

Environmental Regulation and Firm Behavior:

- Becker, R. A., Pasurka Jr, C., and Shadbegian, R. J. "Do environmental regulations disproportionately affect small businesses? Evidence from the Pollution Abatement Costs and Expenditures survey". In: *Journal of Environmental Economics and Management* 66.3 (2013), pp. 523–538
- Greenstone, M., List, J. A., and Syverson, C. *The effects of environmental regulation on the competitiveness of US manufacturing*. Tech. rep. National Bureau of Economic Research, 2012
- Lee, J., Veloso, F. M., and Hounshell, D. A. "Linking induced technological change, and environmental regulation: Evidence from patenting in the US auto industry". In: *Research policy* 40.9 (2011), pp. 1240–1252