

Measuring Policy Uncertainty Using Coal Power Plants' Investment and Exit Decisions

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Preliminary Draft
October 24, 2020

Abstract

Uncertainty in regulatory policies may delay decision making which leads to a suboptimal regulation outcome. The Mercury and Air Toxics Standards (MATS) is an environmental policy that went through several legal challenges and was subject to high uncertainty before its compliance date. I measure the subjective belief regarding the MATS remaining in place using a modified single-agent investment and exit model. The dynamic structural model parallelizes a difference-in-differences framework using the coal-fired power plants' investment and exit decisions to reveal the subjective probability of the MATS policy relative to local mercury rules. I estimate that the probability of MATS remaining in place was around 80% before the compliance year. Had the decision-makers firmly believed in the enforcement of the MATS, the number of coal-fired electric generating units installing the abatement technologies to reduce mercury and retiring would have been larger, and vice versa.

JEL code: D81, L51, L94, Q52, Q58

Key words: environmental regulation uncertainty, coal power plants

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