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

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Abstract

Many coal-fired power plants are retiring since around 2012. The existing empirical studies have diverse conclusions regarding the relative impact of market conditions and environmental regulations on coal-fired power plants' retirement decisions. My study aims to better understand these two factors, with uncertainty in the environmental regulation, on coal-fired power plants' investment and exit decisions. A model incorporating these important factors can help guide the government in designing environmental regulations to reduce emissions efficiently. This study introduces a modified investment and exit model under policy uncertainty and discusses the counterfactuals of different scenarios.

JEL code: Q52, Q58

Key words: environmental regulation uncertainty, natural gas prices, coal power plants

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Coming soon.