Lorenzo Magnolfi, University of Wisconsin-Madison

Pass-through and Instrument Relevance: A Unified Framework for Falsifying Firm Conduct

Paper Abstract ***(Preliminary work, no Draft Available to Circulate)***

We study the role of pass-through in distinguishing models of firm conduct. While direct measurement of pass-through has been used to perform inference on conduct (e.g., Sumner 1981), other approaches leverage instrument-based techniques (e.g., Berry and Haile, 2014). In this paper, we develop a framework for falsification that clarifies how differences in pass-through can distinguish oligopoly models. We show that instrument-based approaches generalize simple pass-through regressions, and how different features of the pass-through matrix underlie instrument relevance for falsification. In particular, we find that variation in tax rates permits falsification of a large class of models. To illustrate the practical relevance of our results, we examine how firms set prices in the legal marijuana market in Washington state. Building on descriptive evidence that retailers adopt simple rules-of-thumb where they price at twice marginal cost, we test a rule-of-thumb pricing model against the standard Bertrand pricing model. Strong instruments, including those constructed from state and local ad-valorem taxes, conclude for rule-of-thumb. The different pass-through implied by these models not only permits falsification, but also has consequences for counterfactual policy exercises.