"Shock Value: Bill Smoothing and Sticky Prices in Utility Retail Rates"

Catherine (Catie) Hausman Assistant Professor Gerald R. Ford School of Public Policy University of Michigan

Abstract

Wholesale natural gas prices vary tremendously as a result of supply-side shocks such as fracking and demand-side shocks such as unusual winter weather. In this paper, I examine how natural gas utilities respond to these cost shocks. Because distributors must cover both gas costs as well as large capital costs, the typical utility uses two-part tariffs. I show that marginal prices are updated nearly continuously, with essentially full pass-through by one year. However, fixed fees vary over time in ways consistent with lessening "bill shock." In particular, high commodity prices lead to reduced fixed fees, such that the bill total is smoothed. The paper thus lends support to one of the explanation for sticky prices observed in the macro literature. In this setting, it is not that menu costs are high (commodity costs are automatically incorporated in bills), but rather that firms or price regulators deliberately smooth cost shocks, in line with the literature on consumer antagonism. This paper contributes to the industrial organization literature on mark-ups and pass-through, the energy literature on regulated utilities, the macro literature on sticky prices, and policy discussions about financing infrastructure upgrades.