

# Linking Cost Passthrough and Demand in Estimation

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## Abstract

Recent literature has made explicit the relationship between cost passthrough rates and the functional form of demand. Though empirical cost passthrough rates have been estimated, there has been little effort to estimate cost passthrough rates in a manner consistent with a specified demand system. In this paper, we show that, in general, cost passthrough cannot be consistently estimated by a reduced-form regression. On the other hand, actual cost passthrough can be misleading in understanding how prices change with costs in equilibrium, which we show by example. We use a numerical simulation to illustrate the type of markets for which estimation via reduced-form regression or via actual cost passthrough may be problematic for the case of random coefficients logit demand. Finally, we outline a methodology to avoid the pitfalls of estimation and better predict how prices move with costs.

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