The Effects of Sin Taxes and Advertising Restrictions in a Dynamic Equilibrium

Rossi Abi-Rafeh, Pierre Dubois, Rachel Griffith and Martin O'Connell

Abstract :
We develop a dynamic equilibrium model of firm competition to study the impact of counterfactual policies, such as taxes and advertising restrictions, on pricing, advertising, consumption and welfare. We estimate the model using micro level data on the market for colas. We use consumer level exposure to television commercials to estimate the impact of advertising on product choice, model firms' dynamic competition through their choice of advertising budgets and product prices, and exploit firms' practice of delegating decisions over advertising slots to agencies to link the rich consumer-level advertising variation with firms' strategic choice variables. We show that a sugarsweetened beverage tax leads to a reduction in advertising and that the incremental effects of implementing advertising restrictions are substantially reduced with a tax in place.