Abstract

What are the profit- and welfare-maximizing sales strategies for a seller of perishable goods facing demand uncertainty? I use a structural model of college football ticket sales that includes primary and resale markets to evaluate three sales strategies: resale, partial refunds, and a menu of state-dependent refund contracts. The optimal strategy depends on the properties of demand uncertainty, specifically whether shocks are idiosyncratic or aggregate and whether changes in consumer values across states of the world are heterogeneous. The model includes shocks with each property. I estimate the model using primary and resale market data on ticket sales as well as survey data on demand for tickets with and without a covid-19 vaccine. I find that using partial refunds rather than resale raises profit by 3.6% and total welfare by 1.3%. Resale is more profitable than not reallocating, producing gains of 1.8% for profit, 4.8% for total welfare, and 10.1% for consumer welfare. When there are states of the world with and without a covid-19 vaccine, state-dependent refund contracts substantially increase profit and welfare relative to not reallocating, with gains of 10.3% for profit and 7.7% for total welfare.