

Abstract

I study the effect of universal service regulation on the speed of rollout of new mobile telecommunications technologies. I develop a dynamic game of entry and technology upgrade under regulation, which I estimate using new data on mobile technology availability in Brazilian municipalities. Counterfactuals show that the regulation accelerated the introduction of 3G technology to lower-income, rural municipalities by just under 1 year, on average, while reducing firms' aggregate profits by 10%. The regulation can act as a commitment device and marginally deter technology deployment by unregulated firms. A subsidy auction achieves similar acceleration of 3G deployment at 21% of the cost, likely increasing welfare.