

Empirical Analysis of the Broadband Coverage in Europe: Infrastructure Sharing vs. Facilities-Based Competition

Christopher S. Yoo

ABSTRACT

For two decades, policymakers have debated whether infrastructure sharing or facilities-based competition represented the better approach to promoting investment in broadband networks. Prior empirical analyses have based their conclusions on subscription data. The existence of significant barriers to adoption unrelated to availability underscores the extent to which subscription data represent an imperfect measure of investment. Data on broadband coverage would represent a more accurate indicator of investment than broadband subscriptions. Fortunately, the European Union began collecting such data in 2011, reporting data separately for both national and rural coverage. This study represents the first in-depth empirical analysis of this data. Regression analysis indicates that that measures of infrastructure sharing are significantly negatively correlated and measures of facilities-based competition are significantly positively correlated with 25 Mbps deployment. A similar regression on 100 Mbps deployment yields similar results, albeit with less statistical significance. Alternative specifications that guard against potential multicollinearity and robustness checks on direct measures of investment corroborate these findings. An analysis of component broadband technologies reveals that DOCSIS 3 plays a more important role than fiber-to-the-home in supporting NGN coverage.