

Do the High Spectrum Prices Harm Consumers? Evidence from Poland

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Abstract

Both academic and industry literature have long debated the potential negative impact of high spectrum prices on the growth of mobile market. Two opposing perspectives dominate this discussion. Proponents of standard economic theory argue that license fees are sunk costs, so they do not influence the subsequent evolution of the mobile market. Despite these theoretical explanations some researchers and representatives of industry organisations expressed concerns about the application of the sunk cost argument in the context of mobile markets and reported that high license fees could have a negative impact on the operators' revenue and investments. Our paper contributes to this discussion by analysing the case study of the 2015 LTE auction in Poland. Total revenue from this auction was among the highest in Europe (amounting to over than €2 billion), raised concerns about the negative implications for the mobile market and consumers. To examine the impact of high spectrum prices on mobile market outcomes, we applied the quasi-experimental approach (difference-in-difference method and interrupted time series design). Unlike standard regression analysis, which may lead to misleading conclusions regarding causality, quasi-experimental methods allow for a more reliable assessment of the causal effects of high spectrum prices in Poland. Our research did not confirm the hypothesis that high spectrum license fees affected the quality of Internet services in Poland. The obtained results are consistent with the sunk cost argument in the context of mobile telecommunications markets, thereby contributing to the ongoing debate between policymakers and industry stakeholders. The findings may support regulatory authorities in Poland and other countries in making more informed decisions regarding spectrum management policies.

Keywords: spectrum auction, license fee, sunk cost, quasi-experiment

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