Market size, competition, and innovation by big and small

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October 17, 2020

Abstract

We construct a model in which there are O firms that can influence the aggregate market conditions and MC firms which cannot influence the aggregate market. We assume that both types of firms can conduct R&D investments to improve their productivities. When the R&D cost of O firms is sufficietnly lower than MC firms, O firms can survive as big firms, which can manipulate the market, dominate the market and conduct the larger R&D investments. We show that with the increase in the market size, the relative outputs and R&D investments of O firms compared to MC firms are raised, and consequelntly, the survival of big firms becomes easy. The welfare analysis shows that the competitive equilibrium does not coincide with the optimal. We show that there is a subsidy policy which enables the economy to achieve the second best allocation.

Keywords: market polarization, R&D investment, market size, markup rates

JEL classification: D21, D43, L13, O31.

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