Strategic R&D Investment Decisions in the Pharmaceutical Industry

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Abstract

Do pharmaceutical firms respond to the actions of their competitors in R&D, and how much? Answering this has implications on the impact of a faster FDA approval process - something pharmaceutical companies are pushing for. While a faster approval process leads to quicker realization of profits and more remaining time on the firm’s patent, it also intensifies competition reducing per-firm profits. Which effect dominates depends on the degree of competition. To this end, I estimate a dynamic investment model using Phase-3 data. Solving the new equilibrium, I find an expedited process is beneficial only when competitors are far from launching.