

Abstract

This thesis develops a theoretical model of a vertically related market with two firms and a recycler which enters the market in the next period. Since the primary production of the manufacturer serves as an input for the future production of the recyclers, the manufacturer has the potential to limit the capacity of the recyclers by decreasing its output. This model shows how an improvement in the recycling process can have two opposing effects; on the one hand, it makes the manufacturer less competitive with recyclers in the future. On the other hand, it makes the manufacturer less motivated to limit its production and thereby forego monopoly profits in the first period. The manufacturer curtails its first period output when collection rate is low, while produces the monopoly output when rate of scrap collection is high. We also examine the effect of a vertical merger between the recycler and the final goods producer on the manufacturer's profits in the two periods with respect to the scrap collection rate. In contrast, to the previous result here the manufacturer supplies the monopoly output when collection rate is low and constraints its output in the first period when collection rate is high.

Keywords: Recycling, Re-manufacturing, Competition, Vertical mergers

JEL-Classification: L13, L72, Q58