Berichte aus der Volkswirtschaft

Martin Lutzenberger

**Regulation, Innovation, and Competition
in the Postal Industry**

Printed in Germany.

Abstract

This book analyzes three important topics related to the ongoing liberalization of the postal sector. In Chapter 2 we try to answer the question whether the European model of end-to-end competition or the US model of worksharing provides stronger innovation incentives for incumbent postal operators. We analyze incentives for process innovation as well as for product innovation based on a two-stage theoretical game model with price competition and product differentiation. In the first stage, before deregulation, the incumbent decides on how much to invest in improving efficiency, and on how much to invest in the development of new products. In the second stage, after deregulation has taken place, firms compete in prices. We find that incentives for process innovation in upstream activities are stronger under end-to-end competition. Incentives for process innovation in delivery are stronger under worksharing, assuming that the entrant's demand under worksharing is higher than the decline in the incumbent's demand. Regarding product innovation, incentives depend on the access price. As we treat the access price as an exogenous variable, we cannot answer in the theoretical part the question of whether incentives for product innovation are higher under end-to-end competition or under worksharing. Therefore, we calibrate our model and get a clear picture of the incentives for product innovation. Incentives for product innovation are higher under end-to-end competition. Furthermore, we analyse in which way cream skimming behavior affects innovation incentives.

In Chapter 3, we discuss optimal regulatory mechanisms designed to provide optimal technical progress in a liberalized postal market. We answer the question of how the regulatory authority would set prices for the incumbent operator if they consider innovation incentives. Therefore we derive the welfare-maximizing prices when the incumbent operator faces a break-even constraint. Afterwards we show that optimal prices can be implemented through a global price-cap imposed on a weighted average of the prices of all products. The appropriate weights are proportional to the market demand (evaluated at optimal prices) of the corresponding products. Using comparative statistics, we observe a counterintuitive result. Whereas one of the main arguments for the ongoing liberalization in the postal market is an expected decrease in prices, we show that under certain circumstance the optimal prices of the incumbent operator are actually increased. Furthermore, we discuss the development of the worksharing discount if innovation takes place, and the effect of non-optimal access pricing on innovation incentives.

In Chapter 4, we analyze competitive strategies and the impending market entry of a new player in the German Business-to-Business (B2B) parcel market. Currently there are four large service providers in the German B2B parcel market. Each of these incumbent providers operates – albeit with varying degrees of automation – with a classical multi-hub-and-spoke network. The entrant plans to enter the B2B parcel market with a completely new parcel delivery system and network. Such operations will enable the incumbent to offer new services to potential customers and realize lower costs and prices than the established firms. We describe the market and contrast the incumbents' and the entrant's strategies and operations. We develop a game-theoretic Cournot model with economies of scale and different cost functions to analyze the effect of the entrant's market entry on competition, market shares, prices, costs and profits. We present calibrated results illustrating the impact of market entry under various scenarios and show that, as long as all incumbent operators are still active in the market after the entry of the new service provider, prices will decrease and the incumbent operators will lose TCM. In contrast, if the new service provider drives out one competitor, the remaining competitors will benefit from entry through higher prices, larger market shares and higher TCM.