We set up a three-firm model of spatial competition to analyse how a merger affects the incentives for relocation, and conversely, how the possibility of relocation affects the profitability of the merger, particularly for the non-participating firm. We also consider the cases of partial collusion in either prices or locations. Under the assumption of mill pricing, we find that a merger will generally induce the merger participants to relocate, but the direction of relocation is ambiguous, and dependent on the degree of convexity in the consumers’ transportation cost function. Furthermore, we identify a set of parameter values for which the free-rider effect of a merger vanishes, implying that the possibility of relocation could solve the “merger paradox”.

Keywords: spatial competition, merger, relocation, partial collusion.

1 Introduction

In imperfectly competitive markets, an important part of the strategic interaction among firms occurs along a spatial dimension. More specifically, the profitability of a given firm is in many cases highly dependent on the firm’s location, relative to its competitors. Thus, to the extent that a firm is able to influence its own location, this is one of the most important decisions to be made. Location can be interpreted in a geographical space, where the locational decision involves the physical location of production plants or outlets, or in the product space. With the latter interpretation, the strategic decision involves the types and ranges of product varieties offered by the firm.
The purpose of this paper is to analyze the strategic importance of spatial competition for firms’ incentives to merge or collude. More specifically, we want to examine how a merger, or partial collusion along one or more dimensions, affects firms’ incentives to relocate from an initial position. The possibility of relocation will, in turn, affect the incentives for merger or collusion.

The importance of relocation in merger analysis is motivated by the casual observation that corporate mergers are often accompanied by some structural changes in the spatial dimension. For instance, we often observe that a merged firm spends considerable resources on rebranding – in order to create a new image in the eyes of consumers – and product repositioning. Another, more specific, example of spatial location is departure “slots” at airports. Airlines do not only decide the prices, but also the time scheduling of their different flights. Since the profitability of different departure times (i.e., locations) is influenced by the flight schedules of competing airlines, any changes in market concentration, e.g., through mergers, are expected to affect the optimal choices of “slots”.

In some markets it is also reasonable to expect that mergers affect locations in the geographical space. Strategic relocation of the kind we

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1 The possibility of product repositioning is also acknowledged in the European Commission’s recent draft notice on the appraisal of horizontal mergers:

“In some markets it may be relatively easy and not too costly for the active firms to reposition their products... The Commission will examine whether the possibility of repositioning or product line extension by the merging parties or competitors may influence the incentive of the merged entity to raise prices” (European Commission, 2002, paragraph 37).

RBB Economics (2003) provides examples of such post-merger repositioning in the cruise industry.

2 In a related, but quite different paper, Lommerud and Sørgard (1997) analyse the possibilities of introducing a new product, or withdrawing an existing brand, in a context of horizontal merger. In another study, Berry and Waldfogel (2001) analyse empirical evidence of the effect of mergers on variety and product repositioning in US local radio broadcasting markets.

3 Indeed, in an empirical analysis of flight departures in the Norwegian airline market, Salvanes et al. (2004) find that changes in the number of competing firms lead to systematic changes in the location of departures.