Abstract

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Regulatory Reforms, Railway Organisation and Cost Efficiency

A Study of the Swedish Model

The railway industry has been subject to regulatory reforms since the late 1980s, aiming at, among other things, improved cost efficiency. In Sweden, the regulatory reforms have been a stepwise process, the most important measures being the vertical separation between infrastructure service provision and the operation of trains, and the introduction of competition in traffic operations.

The purpose of this thesis is to evaluate the impacts of the regulatory reforms of the Swedish railway system from an economic efficiency perspective.

A longitudinal econometric method was used to study the most prominent measures of the Swedish reform model. The results show that vertical separation increases costs, and that the introduction of competition lowers costs. Cost reductions from the competitive pressure more than compensate for the cost increase derived from the vertical separation. Some results on lagged relationships between output and costs in railways with mixed passenger and freight services and a methodology for causal research on the relationship between railway deregulation and costs are presented.

Further, the author analyses some effects of the reforms on the railway passenger transport market. By an econometric approach, estimating a translog cost function, various parameters related to economies of scale are estimated. This thesis also explains how railway passenger service operators can use the parameters for developing organisational and marketing strategies.

Key words: railway, regulatory reform, deregulation, cost efficiency, vertical separation, competitive pressure

Printed in Sweden By Grafikerna Livréna AB Kungälv, 2007 © 2007 Petra Stelling and BAS Publisher