

Efficiency Gain from Mergers: Evidence from the U.S. Railroad Network *

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Abstract

Increased efficiency is generally cited as the primary reason why mergers are good for both consumers and industry, but there is typically little evidence showing the mechanism of cost efficiency following a merger and how it interacts with incentives to raise prices. This paper studies the mechanism of cost efficiency following railroad mergers. First, reduced-form evidence shows that following a merger, the average shipment price decreases significantly and that the effect is greater where railcars must be switched between two companies. However, the interdependent nature of railroad networks means that merger efficiency cannot be fully understood by comparing individual markets in a simple regression. Instead, I estimate a structural model that endogenizes firm pricing, routing, and investment decisions. Counterfactual simulations based on that model decompose the sources of cost efficiency into elimination of interchange cost, routing and consolidation of traffic, and re-optimization of investment. The results show how the relative importance of these three sources change with features of the merger. Moreover, there is tremendous heterogeneity in the welfare effects of mergers across different geographic markets depending upon network ownership and the location of each market within the network.

Keywords: Merger, Cost Efficiency, Railroad, Optimal Transport Network

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