

# Evolution of a Collusive Price in a Networked Market <sup>[1]</sup>

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This paper studies evolution of firms' pricing behavior in a networked oligopoly market, in which firms who are located on vertices of a network compete in price with their neighbors. The classic theory of industrial organization predicts that every firm charges the Walrasian price. However, when a small number of firms compete repeatedly, a price higher than the Walrasian can be sustained by tacit collusion. We show that in our networked market, a collusive price is evolutionary stable under weak selection even if there is a large number of firms. As the magnitude of transportation cost increases, firms charge a more collusive price in the long-run. The results suggest that collusive pricing prevails in a large market if and only if it is networked.

## *Keywords*

Collusive pricing; Evolutionary Dynamics on Networks; Networked Market

1. The paper is available at SSRN: <http://dx.doi.org/10.2139/ssrn.2937160> ↔
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