Dynamic Price Competition for Supply*

Ken C. Ho†

April 15, 2018

Abstract

This paper develops a dynamic model of two intermediates competing for N suppliers, which is motivated by an observation of the fishing industry. Profits of intermediates are subject to i.i.d. shocks. Intermediates use retroactive payments to entice suppliers to sell to them in the upcoming period. We show that there exists a symmetric Markov Perfect Equilibrium in this stochastic game. Then we study the trade-off between higher payments in the current period and higher supply in the next period. An intermediate's incentive to compete for more supply diminishes as the intermediate's market share increases.

JEL: C73, D43, L11, L23

Keywords: Price Competition, Market Share, Stochastic game, Markov perfect equilibrium

---

*I am indebted to Quan Wen for his continuous guidance, advice, and support. I thank Chris Anderson, Takako Fujiwara-Greve, Maria Halac, Jacques Lawarrée, David Miller, Tan Xu.

†Department of Economics, University of Washington, Seattle, WA 98195, USA. E-mail: kh89@uw.edu.