Mixed Oligopoly and Spatial Agglomeration in Quasi-Linear City

Takeshi Ebina[*],

Department of Social Engineering, Tokyo Institute of Technology,

Toshihiro Matsumura[†]

Institute of Social Science, University of Tokyo,

and

Daisuke Shimizu[‡]

Faculty of Economics, Gakushuin University

January 19, 2009

Abstract

We apply a spatial model that includes both circular-city and linear-city models as special cases to the analysis of mixed oligopoly where a public firm competes against private firms. As the model changes from circular-city to linear-city, the equilibrium location pattern changes gradually, and then stops at the linear-city equilibrium location when the shift parameter is at and greater than 0.4. At this point, the model is closer to being circular-city than linear-city. Thus we find that the linear-city result is more likely in our setting as the equilibrium location.

JEL classification numbers: R32, L32

Keywords: linear-city, circular-city, location-quantity, mixed oligopoly

---

[*]Department of Social Engineering, Graduate School of Decision Science and Technology, Tokyo Institute of Technology, 2-12-1 Oh-okayama, Meguro-ku, Tokyo 152-8552, Japan. Phone: (81)-3-5734-2929. Fax: (81)-3-5734-3622. E-mail: ebina-t@soc.titech.ac.jp

[†]Institute of Social Science, the University of Tokyo, 7-3-1, Hongo, Bunkyo-ku, Tokyo 113-0033, Japan. Phone: (81)-3-5841-4932. Fax: (81)-3-5841-4905. E-mail: matsumur@iss.u-tokyo.ac.jp

[‡]Corresponding Author: Faculty of Economics, Gakushuin University, 1-5-1, Mejiro, Toshima-ku, Tokyo 171-8588, Japan. Phone: (81)-3-5992-3633. FAX: (81)-8-5992-1007. E-mail: daisuke.shimizu@gakushuin.ac.jp