

# Endogenous Market Size, Partial Privatization, and Urban Structure \*

Tohru Naito  
Doshisha University<sup>†</sup>

January 28, 2026

## Abstract

This paper integrates a mixed duopoly market into an open monocentric city model and develops a general equilibrium framework in which market size is endogenously determined through urban structure and household location behavior. A public firm and a private firm compete in the manufacturing sector located at the central business district.

We analyze how public firm privatization affects the equilibrium price of manufactured goods and the equilibrium city size. Privatization increases the equilibrium price and reduces city size. However, once indirect effects through city size are taken into account, the welfare impact of privatization becomes ambiguous. As a result, the conclusion of Matsumura (1998) that partial privatization always maximizes social welfare does not generally hold. Numerical examples illustrate that full nationalization or full privatization can be optimal depending on parameter values.

**Keywords:** Partial Privatization; Mixed Duopoly; Open City Model; Endogenous Market Size; General Equilibrium

**JEL Classification:** H42; R13; L13

---

\*This work was supported by the Japan Society for the Promotion of Science (JSPS) KAKENHI Grant Number JP24K04849.

<sup>†</sup>Email: [tnaito@mail.doshisha.ac.jp](mailto:tnaito@mail.doshisha.ac.jp)