## Partial Privatization and Strategic Budget Constraints in Unionized Mixed Duopoly with Firm Heterogeneity

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## Abstract

With the incorporation of the firm heterogeneity and the budget constraint, this paper provides a fresh perspective toward the decision-making of privatization policy. Under the consideration of a less production efficient public firm than the private firm, if the budget constraint is not required, the best policy is full nationalization when the wage is decentralized bargained. If the wage is centralized bargained and the efficiency gap between the public firm and the private firm is small, partial privatization is the best policy with positive relation between the productivity difference and the privatization degree. If the efficiency gap is moderate, then the best policy is full privatization. If the efficiency gap is huge, then the best policy is again partial privatization with the inverse relation between the productivity difference and the privatization degree. Lastly, if the budget constraint is mandatory, then the neutrality of partial privatization holds.

*Keywords*: Firm heterogeneity; Budget constraint; Partial privatization *JEL classification*: J31; J51; L13

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