

## **Equilibrium and Optimum City Size with the Presence of Pollution**

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*Abstract:* This paper attempts to find the equilibrium and the optimum size of a mono-centric open city that produces a constant return to scale good and a group of differentiated services by assuming fixed and variable coefficient emissions. The model in this paper assumes a positive externality (agglomeration economies) and a negative externality (pollution). Since it is an open city, there will be too much agglomeration in the absence of any penalty on the polluters. The results of this paper show that the market outcomes are sub-optimal, and therefore, a tax scheme is warranted to insure the correct level of agglomeration.

*Key words:* Equilibrium and Optimum City Size, City Size and Pollution

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