

# Equilibrium Dynamics in a Model of Growth and Spatial Agglomeration

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December 2, 2013

## Abstract

We study a multi-regional growth model in which forward-looking consumers choose their regions to live in, in addition to consumption and capital accumulation paths. As in standard geographical models, agglomeration has two opposing forces: it boosts the productivity of regional production function, whereas it causes urban congestion. Although there is no trade, regions are connected through spillover effects in production. We consider an overlapping generations economy in which consumers are uncertain about their life spans, and thereby characterize the spatial equilibrium path by appealing to turnpike theory in the economic growth literature. We show that people's time preference is a decisive factor for which of the two opposing forces dominate, and dramatically changes the long-run population distribution. It also plays a crucial role for the direction of inefficiencies in the long-run.

*JEL classification:* C62; C73; D62; O41; R13.

*Keywords:* Growth; Agglomeration; Congestion; Externality; Overlapping generations; Perfect foresight path; Forward-looking expectations.

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