

Urbanization and Structural Change in an Endogenous Growth Setting

Murat Koyuncu

Bogazici University[†]

Burak Turkgulu

University of Maryland

Abstract

This paper aims to model structural change without resorting to Engel's Law or exogenous technological progress differences across sectors. We investigate the implications of Romer-type endogenous technological change on urbanization and structural change using a two-sector growth model where the growth-inducing externality stems from the urban production. We make use of the tight link between urbanization and structural change by assuming that industrial and agricultural sectors are located in urban and rural areas respectively. We present two models. First model assumes perfect labor mobility between rural and urban sectors, thus wage rates are equalized between these two sectors. This structure results in multiple equilibria and no transitional dynamics. Main aggregate variables grow at the same rate at the steady state but the model can account for both increasing and decreasing patterns of prices. For the plausible case, we find that the urbanization level is related positively with the taste in urban goods and the share of labor in urban sector, and negatively with the share of labor in rural sector and the discount factor. Second model features imperfect mobility of labor between the two sectors, where migration function is increasing in the wage gap between urban and rural sectors. The implication is that there are transitional dynamics on a single equilibrium path, where both the urbanization level and the urban consumption to capital ratio increase, for a given initial level of urbanization.

[†] Corresponding author. Bogazici University, Department of Economics, Bebek, Istanbul, Turkey. E-mail: mkoyuncu@boun.edu.tr