Effects of technology diffusion
in a two-sector endogenous growth model

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2018 年 1 月 28 日

Abstract

This paper develops a non-balanced endogenous growth model in a two-sector economy. In each sector, there are a representative final good producer and heterogeneous intermediate good producers who possess idiosyncratic technology which determine their productivity. Final good firms makes a use of intermediate goods in the sector which they belong to as factor of production and supplies goods to households. Intermediate good firms owned by households face two choices of decision-making, employing labor for production or learning from another firm to adopt technology. This adoption causes the improvement of productivity distribution, and economic growth is determined by the improvement of both sectors. The critical factor of sectoral growth is the shape of distribution, namely the more inequal sector evolves faster. Thus, two sectors grow by different rates in one economy. Moreover, this paper considers a tax-subsidy policy and shows that small subsidy reduces economic growth rate under certain conditions

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