

# Population Growth and Trade Patterns in Semi-Endogenous Growth Economies

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## Abstract

This paper builds a two-country, two-sector (manufacturing and agriculture), semi-endogenous growth model and investigates the relationship between trade patterns and the growth rate of per capita real consumption. Under autarky, the growth rate of per capita real consumption is higher in the country where its population growth is higher than that of the other country. Under free trade, if the home country produces both goods and the foreign country specializes in agriculture, then the growth rate of the home country and that of the foreign country are equalized, and this trade pattern is sustainable through time as long as the population growth of the home country is higher than that of the foreign country. On the other hand, under free trade, if the home country specializes in manufacturing and the foreign country specializes in agriculture, then the growth rate of the home country is higher than that of the foreign country, and this trade pattern is sustainable through time as long as the population growth of the home country is lower than that of the foreign country. Moreover, our results are consistent with an empirical finding: the relationship between population growth and per capita income growth differs for developed and developing countries.

*Keywords:* semi-endogenous growth model; trade patterns; population growth; per capita consumption growth

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