

# **OPTIMAL GROWTH AND MIGRATION IN A DISCRETE-TIME RAMSEY MODEL: A NOTE**

**LUCA CORREANI**

DISTATEQ, Tuscia University of Viterbo  
Email: correani@unitus.it

**FABIO DI DIO**

Consip Spa (Italy's Ministry of the Economy and Finance)  
Email: fabio.didio@tesoro.it

**STEFANO PATRI**

Territory and Finance Sapienza University in Rome  
Email: stefano.patri@uniroma1.it

## **Abstract**

In this paper we develop two simple discrete-time Ramsey models augmented with migrant workers to assess the impact of migration on per-capita domestic consumption. In one model we assume perfect substitutability between migrants and natives while in a second model we explore the effect of migration in the case of imperfect substitutability. We find that migration unambiguously rises per-capita domestic consumption growth in the case of perfect substitutability in the short as well as in the long run, while in the case of imperfect substitutability migration increases the long-run per-capita domestic consumption only if production is 'sufficiently' reactive to capital changes.

Our findings are partially in contrast to similar analyses developed in continuous time (in particular those of Hazari and Sgro (2003) and Moy and Yip (2006)).

**Keywords:** Migration, Domestic consumption, Growth.

**JEL classification codes:** F2, O4.