

The rise of the service economy and the real return on capital*

Miguel León-Ledesma[†]

University of Kent

Alessio Moro[‡]

University of Cagliari

October 12, 2016

Abstract

We use a two-sector model of structural transformation and balanced growth to show that the real interest rate, measured as the return on capital in units of GDP or in units of aggregate consumption, declines as income grows. This is due to the differential TFP growth in the goods producing sector relative to the services sector. This differential drives a relative price change that triggers a steady decline in the rate of return on capital along the growth path. We calibrate the model to U.S. data to reproduce the behavior of GDP, the share of services in consumption, the relative price goods/services and the investment/output ratio in the period 1950-2015. We find that the calibrated model displays a decline of the real interest rate of 36% in terms of units of GDP and of 43% in terms of units of aggregate consumption during the period considered.

JEL Classification: E22; E24; E31; O41.

Keywords: Structural transformation, productivity of capital, two-sector model.

*León-Ledesma: School of Economics, University of Kent, Kent CT2 7NP, UK, and Macroeconomics, Growth and History Centre (MaGHIC) (e-mail: m.a.leon-ledesma@kent.ac.uk). Moro: Department of Economics and Business, University of Cagliari, Via Sant' Ignazio, 17, 09123 Cagliari, Italy (e-mail: amoro@unica.it). We thank Fabio Cerina, John Fernald, Wei Jiang, and Vincenzo Merella for useful comments. The usual disclaimers apply.

[†]Contact: m.a.leon-ledesma@kent.ac.uk

[‡]Contact: amoro@unica.it.