INTRODUCING COMPETE MARKETS IN A NEOCLASSICAL GROWTH MODEL

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1. INTRODUCTION

The one-sector neoclassical growth model provides an attractive framework for studying production and capital accumulation, and if we consider stochastic environments also for analyzing the cyclical behavior of an economy. The main result derived from a deterministic neoclassical growth model is the existence of a constant capital/output ratio, while, on the other hand, the usual stochastic neoclassical growth models imply a constant future capital/present output ratio. These are specifically the theoretical stylized facts of growth we are going to study modifying the typical growth models in order to consider complete markets. We present a non aggregate dynamic general competitive equilibrium model with production and capital accumulation in an uncertainty environment with complete markets. From this non aggregate model we obtain the associated RBC model, and making use of the dynamic programming algorithm we solve numerically for the steady state under five different stochastic specifications. We find that our growth model with complete markets explains as particular cases the stylized facts of growth, both for the deterministic and stochastic neoclassical growth models, and also implies more general results impossible to obtain with the standard neoclassical growth models.

JEL Classification: D5, E3

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