

Indeterminacy in an R&D-based Endogenous Growth Model with Nominal Wage Stickiness

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Abstract

This study proposes a new monetary growth model involving a price stickiness and endogenous R&D, by introducing nominal wage stickiness and money growth into an R&D-based growth model. The main purpose of this study is to examine how money growth affects long-run economic growth and determinacy property of equilibrium paths. We find that there exists a unique balanced growth path for sufficiently high rates of money growth, and that the economy exhibits sustained growth based on sustained R&D. Faster money growth results in greater employment and faster economic growth along such a balanced growth path; however this makes the balanced growth path more likely to be indeterminate. As a result, policy-makers may face a trade-off between growth enhancing policies and economic stabilization policies.

JEL classification: O11, O42, E12, E31

keywords: endogenous growth, indeterminacy, new Keynesian Phillips curve, nominal rigidities, monetary growth model

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