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Solving and Estimating Indeterminate DSGE Models

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Abstract

We propose a method for solving and estimating linear rational expectations models that exhibit indeterminacy and we provide step-by-step guidelines for implementing this method in the Matlab-based packages Dynare and Gensys. Our method redefines a subset of expectational errors as new fundamentals. This redefinition allows us to treat indeterminate models as determinate and to apply standard solution algorithms. We provide a selection method, based on Bayesian model comparison, to decide which errors to pick as fundamental and we present simulation results to show how our procedure works in practice.