

A Unified Framework for Equilibrium Selection in DSGE Models

Mitsuhiro Okano*

January 28, 2026

Abstract

This paper characterizes DSGE models as fixed-point selection devices for self-referential economic specifications. We formalize this structure as (S, T, Π) : specification, self-referential operator, and equilibrium selector. The framework applies to any DSGE model through compositional pipelines where specifications are transformed, fixed points computed, and equilibria selected. We provide formal results and computational implementation for linear rational-expectations systems, reinterpreting Blanchard–Kahn conditions as a specific selection operator and verifying that standard solution methods (such as QZ decomposition and OccBin) realize this operation. We show that alternative selectors (minimal-variance, fiscal anchoring) become available under indeterminacy, revealing selection as a policy choice rather than a mathematical necessity. Our framework reveals the formal structure underlying DSGE solution methods, enabling programmatic verification and systematic comparison of selection rules.

Keywords: DSGE models, equilibrium selection, rational expectations, indeterminacy, Blanchard–Kahn conditions

JEL Classification: C62, C63, E31, E32, E52

*Faculty of Economics, Osaka Gakuin University, 2-36-1 Kishibeminami, Suita-City, Osaka 564-8511, Japan. Tel.: +81-6-6381-8434. E-mail: okano@ogu.ac.jp