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FINITE HORIZON DYNAMIC GAMES WITH AND WITHOUT A SCRAP VALUE

Abstract:

In this paper, we examine the effects of scrap values on the solutions of dynamic game Problems with a finite time horizon. We show how to include a scrap value in the OPTGAME3 algorithm for the numerical calculation of solutions for dynamic games. We consider two alternative ways of including a scrap value, either only for the state variables or for both the state and control variables. Using a numerical macroeconomic model of a monetary union, we show that the introduction of a scrap value is not appropriate as a substitute for an infinite horizon in dynamic economic policy game problems.

Keywords:

dynamic games, scrap value, finite horizon, Pareto solution, feedback Nash equilibrium solution

JEL Classification: C73, E60