We suggest a new general framework to tackle dynamic general equilibrium nonlinear economic problems like those found in standard economic growth literature.

The framework proposed guarantees the stability and time consistency of this class of models, by transforming the infinite-horizon into a finite-horizon problem, adapting results from stability of Model Predictive Control frameworks (Fontes 20011). Furthermore, we can relax on some of the assumptions frequently upheld when proceeding with an analytical study of the model. Specifically, one no longer needs to loglinearize around an equilibrium, proceed with a change of base to reduce the number of dynamic equations or to part from a steady state when analyzing the transitional dynamics of the system, i.e., when the system departs from its stationary state.

The framework can also be used to simulate the transition process when the economy is subject to exogenous shocks. We illustrate the technique by employing the framework on the resolution of the standard Ramsey-Cassman-Koops growth model, a very simple case of optimal control applied to economics.

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