

Evolutionary Stability of Keynesian Temporary Equilibrium

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A model has been built of a small macroeconomy with demand-constrained firms on the basis of Keynesian investment theory in which the price level plays the “carrier of profits” role. Combining the kinked demand curve perceived by business firms, as posited by Negishi (1979), with Minsky’s investment theory clarifies the relationship that enables the output price to assume the “carrier of profits” role. Then, the model is used to explore the questions of whether and to what extent a demand-constrained capitalist economy is robust against a sudden change in the reliability of the prospective yield. We capture these changes as mutant behaviors and then apply a stability concept similar to an evolutionarily stable outcome (Swinkels (1992)).

An essential assumption of the model is that the investing firms are boundedly rational; they undertake investment projects on the basis of the demand constraints and static expectations for the prices of output and inputs.

The paper shows that there exists a unique steady-state equilibrium in which the compensation to overhead employees generates the gap between the output price and the average cost including capital cost. There are multiple demand-constrained temporary equilibria near a steady-state equilibrium. Using the evolutionary stability approach, the paper explores the questions of whether and to what extent a capitalist economy is robust. It is found that zero-investment mutant strategy can upset an equilibrium with the smallest population, thus triggering debt-deflation process. Further, the paper demonstrates that, the larger compensation to overhead employees, the more stable the economy becomes. In particular, the steady state equilibrium with no such compensation is evolutionarily unstable.

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