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Uncertainty-Induced Dynamic Inefficiency and the Optimal Inflation Rate

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Abstract

I construct an overlapping-generations model of money with Epstein and Zin (1989) preferences and study how aggregate output uncertainty affects the optimal rate of inflation for aggregate consumption. When money only serves as savings instruments, I find that the optimality of Friedman rule breaks up only if agents prefer late resolution of uncertainty. However, if an additional role of money as a medium of exchange is introduced, then the Friedman rule achieves generally suboptimal level of aggregate consumption regardless of agents' preferences for the timing of uncertainty resolution. The aggregate output uncertainty, nevertheless, crucially determines the level of optimal inflation rate in this case. Lastly, the optimal degree of aggregate output uncertainty given a positive inflation rate turns out to be generally non-zero regardless of the role of money.

Keywords: money; overlapping generations; recursive preferences; optimal inflation
JEL Classification Numbers: E31, E52, E58

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