

ESSAYS ON THE THEORY OF UNCERTAIN LIFETIMES

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Essays on the Theory of Uncertain Lifetimes

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Abstract

Several aspects of the economics of uncertain lifetimes are explored in this thesis. In the first essay, I posit a model of uncertain lifetimes with adverse selection with two types of individuals differing only in terms of their (private information) survival probabilities. I prove the existence of an equilibrium where the firms behave "nonstrategically". I also show that the equilibrium is not Pareto efficient. The roles of compulsory tax/transfer schemes are explored. In the second essay, I study the effects of changes in population proportions and attitudes towards risk on the equilibrium rate of return of the annuities. In the third essay, the general equilibrium impacts of a change in the survival probability are investigated. In the last essay, we investigate the effects of increased longevity, attitudes towards risk on the optimal purchase of annuities in a partial equilibrium model.

Professor Edward Foster, Committee Chairman

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