

A Dynamic Equilibrium Asset Pricing Model - Some Numerical Issues

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We embed the notion of banks as monitors who reduce risk into a two-trees framework, and consider an economy in which capital can be moved between the trees. The equilibrium is a solution of an optimal control problem, or, equivalently, of a nonlinear parabolic PDE, which we solve numerically. We characterize how, in equilibrium, resources are optimally allocated between the intermediated banking sector and a risky sector as a function of the relative size of the banking sector - the bank share - and the speed at which capital can move in and out of that sector - financial flexibility. Methodologically, our paper contributes to the two-trees literature by allowing for reallocation of resources between trees in a tractable framework; this flexible-tree approach allows for stationary share distributions.

Professor Walden has been an Assistant Professor of Finance at UC Berkeley's Haas School of Business, since 2005. He served as a management consultant for McKinsey and Company in Stockholm Sweden from 1999-2002. He was also a post doctoral research associate at Yale University's Dept of Mathematics from 1997-1999.