

"Frontiers in General Equilibrium Applied to Finance"

Aloisio Araujo and Mario Pascoa

The applications of general equilibrium to finance can be grouped in three waves. The first started with the application of the Arrow-Debreu concept of state contingent prices developed in the 1950s to a better understanding of Black-Scholes formula and the pricing of derivatives in general (see Duffie). The second wave studied the abstract incomplete markets model in its several aspects, existence, determinacy, suboptimality and infinite horizon properties. Market incompleteness was used to understand stochastic volatility of security prices and also to explain the risk premium puzzle (see Magill-Quinzii).

We can consider as a third wave the development of general equilibrium models with default to understand credit risk and institutional arrangements that can deal with it. This third wave was made possible by the incomplete markets theory and motivated by understanding how incompleteness can be mitigated by default or bankruptcy.

More specifically, this paper addresses in its first section the finite horizon case, covering default and penalties, collateral and credit restrictions. The second section deals with the infinite horizon case, where Ponzi schemes and bubbles may occur. The third section discusses bankruptcy laws and its implications for the functioning of financial markets.