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Title: "Collective Arbitrage and the Value of Cooperation"

Abstract

The theory developed in the paper aims at expanding the classical Arbitrage Pricing Theory to a setting where N agents are investing in financial markets and are allowed to cooperate via exchanges. In this framework, we introduce the notions of Collective Arbitrage and Collective Super-replication and we accordingly establish versions of the fundamental theorem of asset pricing and of the pricing-hedging duality. Examples show the advantage of our approach.

Cooperation and the multidimensional property are the key features of the novel notions of Collective Arbitrage and Collective Super-replication. In case of one single agent, the theory reduces to the classical one.