

# Ambiguous Pricing and Financial Market Imperfections

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April 2, 2013

## Abstract

Financial markets imperfections refers to some violation of frictionless complete market hypothesis. In both cases of incompleteness or transactions costs the corresponding nonlinear valuation is related to a set of linear pricing rules or an ambiguous stochastic discount factor. Actually, a pricing rule is computed by the "largest" expected value from a set of probabilities given by a polytope. First, we show what condition (missing in the literature) should be imposed in the pricing rule in order to guarantee the "polytope representation".

In the main part of this paper, we obtain how we can recover financial markets imperfections from special features of pricing rules. Our principal result shows that incompleteness of financial market is related to a extreme case of ambiguous pricing while effective complete markets with bid-ask spreads is the prevalent case. We also discuss some special cases, *e.g.*, we have complete financial market with uniform bid-ask spreads if, and only if, the market valuation is given by an epsilon-contaminated pricing rule.