

Financial Mathematics

Risk indifference pricing and dynamic no-good-deal bounds

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In an incomplete market with no a priori assumption on the underlying price dynamics, we consider the problem of derivative pricing from the seller's perspective. Dynamic risk indifference pricing rules provide convex prices and indeed they are a reasonable example of a convex price system. No-good-deal prices are a class of non-arbitrage prices based on the restriction of the risk-neutral measures applied so to exclude deals that are "too good to be true", but still not arbitrage opportunities. In [1], the dynamics no-good-deal bounds were introduced. In this talk we discuss the representation of continuous time convex price systems satisfying these bounds. Moreover we study the dynamic risk measures in the risk-indifferent pricing that allow a risk indifference convex price system to satisfy the no-good-deal bounds. Our techniques are based on extension theorems for operators in the L^p setting for $(p \in [1, \infty])$.

References

- [1] J. Bion Nadal and G. Di Nunno (2013): Dynamic no-good-deal pricing measures and extensions theorems for linear operators on L^∞ . *Finance and Stochastics*, 17, 3, pp. 587-613.
- [2] J. Bion-Nadal and G. Di Nunno (2014): Representation of convex operators and their static and dynamic sandwich extensions. *ArXiv 1412.2030v1*. [3]
- [3] J. Bion-Nadal and G. Di Nunno (2016): Fully dynamic convex pricing: no-good-deal and risk-indifference. *Manuscript*.