



Minisymposium 14 - Stochastische Marktmodelle

Composition of Time-Consistent Dynamic Monetary Risk Measures in Discrete Time

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In discrete time, every time-consistent dynamic monetary risk measure can be written as a composition of one-step risk measures. We exploit this structure to give new dual representation results for time-consistent convex monetary risk measures in terms of one-step penalty functions. We first study risk measures for random variables modelling financial positions at a fixed future time. Then we consider the more general case of risk measures that depend on stochastic processes describing the evolution of financial positions. In both cases the new representations allow for a simple composition of one-step risk measures in the dual. We discuss several explicit examples and provide connections to the recently introduced class of dynamic variational preferences. It is joint work with Patrick Cheridito (Princeton University).