

On Distributionally Robust Log-Optimal Portfolio with Frictions: A Flight-to-Safety Principle

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ABSTRACT

This talk examines how distributional ambiguity and transaction costs jointly affect log-optimal portfolio choice. Return uncertainty is modeled by a Wasserstein ambiguity set centered at the empirical distribution, and trading frictions are captured by a convex, positively homogeneous cost at each rebalance. We establish the flight-to-safety principle: transaction costs reduce ambiguity tolerance. As frictions increase, the critical ambiguity radius that induces full allocation to the risk-free asset decreases monotonically. Empirical evidence from S&P 500 constituents confirms a systematic shift toward the risk-free asset once costs are introduced.