

Abstract

We study auction design for bidders equipped with non-expected utility preferences that exhibit constant risk aversion (CRA). The CRA class is large and includes loss-averse, disappointment-averse, mean-dispersion and Yaari's dual preferences as well as coherent and convex risk measures. Any preference in this class displays first-order risk aversion, contrasting the standard expected utility case that displays second-order risk aversion. The optimal mechanism offers "full-insurance" in the sense that each agent's utility is independent of other agents' reports. The seller excludes less types than under risk neutrality, and awards the object randomly to intermediate types. Subjecting intermediate types to a risky allocation while compensating them when losing allows the seller to collect larger payments from higher types. Relatively high types are willing to pay more, and their allocation is efficient.