Optimal Contracts for Loss Averse Consumers

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We enrich the standard model of optimal contract design between a monopolist and a continuum of potential buyers under asymmetric information by assuming that consumers have reference-dependent preferences and loss aversion.

In our model, consumers are endowed with quasi-linear utilities over the quality parameter of a good sold by a monopolist. The total valuation for quality is composed of the standard consumption valuation, which is affected by privately known types, and an additional gain-loss valuation that depends on deviations of purchased quality from the reference point. Potential buyers are loss-averse, so that deviations from the reference point are evaluated differently depending on whether they are gains or losses.

We maintain Koszegi and Rabin (QJE 2006) basic framework and let gains and losses relative to the reference point be evaluated in terms of changes in the consumption valuation. However, we consider different ways in which reference quality levels are formed. In particular, we consider reference qualities as a monotone function of types. The presence of reference points creates downward kinks in the total valuation for the good, as a function of the privately known types, which renders the standard techniques based on revenue equivalence moot. Nonetheless, we apply a generalization of the standard envelope techniques to derive, for monotone reference functions, the optimal selling contract between the monopolist and loss averse consumers. We find that, depending on how reference points are formed, there is substantial difference between optimal contracts for loss averse consumers and optimal contracts for loss neutral buyers, both in terms of expected revenue generated to the monopolist and quality-price offered to each type of consumer.