Self-Insurance And Liability Insurance Under Ambiguity

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Abstract

This paper provides an experimental test of the effects of liability regimes on the demand for both insurance and self-insurance. More precisely, we examine the effects of risk and ambiguity under different liability regimes: negligence rule and strict liability.

The experiment relies on an original model of unilateral accident with civil liability. We consider a potential injurer whose activity can generate an accident. Depending on the liability regime, the agent may have to compensate the victims for the damages generated by the accident. The injurer can decrease the magnitude of the potential damages by investing in self-insurance. When liability insurance is allowed by the regulator, the injurer may invest in an insurance coverage. Under the strict liability rule, the injurer is liable under all circumstances, whatever her level of self-insurance. Under the negligence rule, the injurer should compensate the victims if and only if her level of self-insurance is inferior to a legal standard. To differentiate between risk and ambiguity, we successively assume that the probability of accident can be known perfectly or with imprecision; in the latter, we have recourse to the KMM approach (Klibanoff et al. (2005)).

Our theoretical predictions are derived from the model. First, under strict liability: 1) If liability insurance is allowed and for an actuarial price of insurance, an ambiguity-averse agent invests more in self-insurance under ambiguity than under risk, if the intensity of risk-aversion is low; 2) When liability insurance is prohibited, ambiguity-averse agents always demand higher levels for self-insurance under ambiguity than under risk, whatever the intensity of risk-aversion. Second, under negligence rule: 3) If liability insurance is allowed and for an actuarial price of insurance, the demand for self-insurance is invariant under risk and ambiguity for an ambiguity-averse agent. This demand for self-insurance is equal to the legal standard. 4) The ambiguity-averse agent prefers a null insurance coverage.

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