Optimal Mechanism Design with Resale: A Posted Price Bankruptcy Model

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Abstract

This paper investigates the optimal posted price mechanism design of selling an indivisible object into the market that consists of one public agent and one regular agent facing to a random financial shock and has limited liability. I propose the liquidation rule named as resale recover, and surprisingly, to base on the analysis of the bankruptcy problem, the strategic default is no more an optimal strategy in every feasible mechanism. In characterizing the resale market where the resale price is modeled as a monopoly price, I find that the public winner prefer to supply a higher resale price if he faces to some positive probability of bankruptcy. Following the reselling behavior, the optimal posted price mechanism is uniquely designed when the resale cannot be prohibited. In the optimal mechanism, the regular winner induces higher seller's surplus and lower bankruptcy rate than other winner, that is the seller always allocate the object to the regular agent. Also to compare with the full-payment optimal posted price mechanism, I show that the seller's optiaml surplus is equivalent in two mechanisms if the financial shock of public agent is constant.

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