Non-Binding Agreements in Matching Markets: Evidence from Trucking

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Abstract

Many matching markets feature non-binding agreements, often giving one party in a transaction the option to renege against a standardized penalty. In some cases, the penalty is non-pecuniary, and is enforced through relational incentives. This paper examines the social welfare implications of such relational penalties in the trucking industry, using novel data from an online freight auction platform. First, I document widespread reneging on the platform and develop a theoretical model of the carrier search process with stochastic offers from outside the platform. I show the importance of considering both the direct effect of the penalty on reneging behavior, as well as the equilibrium pass-through of lost welfare to the final transaction price. Using structural estimates of the model, I simulate counterfactual cancellation schedules with both increasing and uniform penalties. I find that the current near-zero penalties are nearly optimal for social welfare. I also consider a switch to pecuniary penalties. The socially optimal pecuniary penalty increases overall welfare by 1.6%, driven by an increase in platform profits of 8.4%. The profit-maximizing penalty raises platform profits by 61.4% but reduces overall welfare by 5.4%, indicating that while pecuniary penalties create gains from trade, they also allow the platform to extract more rents from carriers, reducing overall efficiency.

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