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Detection of Collusive Networks in E-procurement

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Abstract

Collusion likely has adverse effects on social welfare. In this paper, we study collusion in the e-procurement market in Ukraine. We document that the bidding patterns in the data are incompatible with a competitive equilibrium. We develop a novel structural test to detect pairs and, thereby, networks of collusive firms. We validate the soundness of our collusion detection algorithm on a sample of 863 prosecuted collusive firms that participated in 23,515 tenders.