Detecting Large-Scale Collusion in Procurement Auctions*

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Abstract

This paper documents evidence of widespread collusion among construction firms using a novel dataset covering most of the construction projects procured by the Japanese national government. By examining rebids that occur for auctions when all (initial) bids fail to meet the reserve price, we identify collusion using ideas similar to regression discontinuity. We identify about $1,000$ firms whose conduct is inconsistent with competitive behavior. These bidders were awarded about $7,600$ projects, or close to one fifth of the total number of projects in our sample. The value of these projects totals about $\$8.6$ billion. Simply scaling up our estimates by the size of the total public construction spending, our results imply that about 0.85% of GDP, or 4% of total national investment, is affected by collusive activity by construction firms and that collusion increases government spending by about $3.4 billion per year, or 0.4% of the total tax revenue.

Key words: Collusion, Procurement Auctions, Antitrust
JEL classification: D44, H57, K21, L12

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