

Price Competition and Effects of Political Connections on Allocations:

Evidence from a Regression Discontinuity in Bid-screening Cutoffs for Procurement Auctions

Yongseok Kim

June 1, 2019

Motivation

- ▶ Previous studies show that political connections can affect procurement allocations (Schoenherr, 2019).
- ▶ However, policy makers often design procurement contracts to be allocated by an auction, which is believed to rule out effects of political connections in a competitive market.
- ▶ Then, how do political connections affect allocations beyond the price competition? This paper aims to answer this question.

Motivation

- ▶ One of suspects is a bid screening: procurers usually disregard abnormally low, “too-good-to-be-true” bids and then choose the lowest one among the remaining bids.
- ▶ The rationale for such bid screening practice is that
 1. too low bids in construction procurement lead to frequent cost overruns, thereby causing socially wasteful ex-post disputes (Eun, 2019).
 2. weakening collusion by limiting the cartel’s ability to punish deviators (Chassang and Ortner, 2017).
- ▶ Governments of many countries automatize the bid screening process by introducing cutoffs under which bids are disregarded, e.g., Chile, China, Italy, Peru, Switzerland, Taiwan, Japan, and Korea (Decarolis, 2009; Ishii, 2008; Chassang and Ortner, 2017).

Motivation

- ▶ When cutoffs are set properly, ex-ante bid screening reduces the total social cost by reducing ex-post adjustment cost (Eun, 2019).
- ▶ However, such restricted price competition can also lead to increased effects of political connections on a procurement allocation.
 1. Minimum price rules can allow procurers to allocate contracts not by bid prices but by political connections or lobbying.
 2. Politically connected CEOs would also have a stronger incentive to utilize their social capital when there is more money on the table.
- ▶ Though intuitively straightforward, examining this argument is empirically challenging since it requires external variations in restrictions.

This Paper

- ▶ Exploiting a regression discontinuity in bid-screening cutoffs, I suggest a causal evidence supporting this view.
- ▶ Specifically, I use a detailed procurement auction data for military constructions in Korea from 2006 to 2018.
- ▶ Identification:
 - ▶ Cutoffs are set to be an estimated cost of projects multiplied by a pre-determined ratio.
 - ▶ There is a significant discontinuity in this ratio (5%) around the estimated cost 10 billion KRW.
- ▶ Assumption: Estimated costs around 10 billion KRW would be randomly distributed.

Preview of Findings

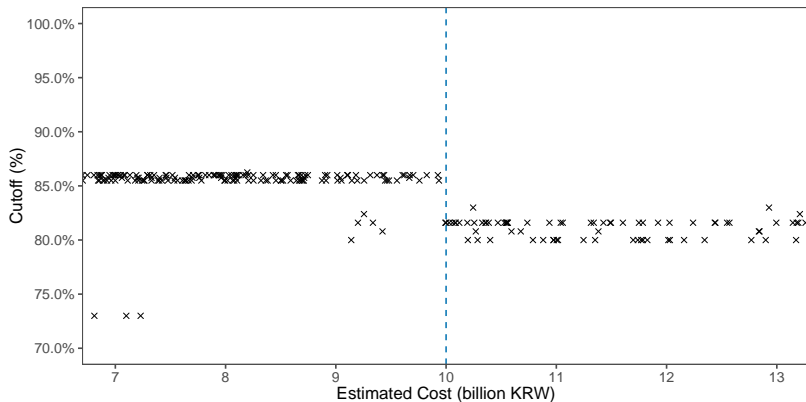


Figure: Discontinuity in Bid-screening Cutoffs

Preview of Findings

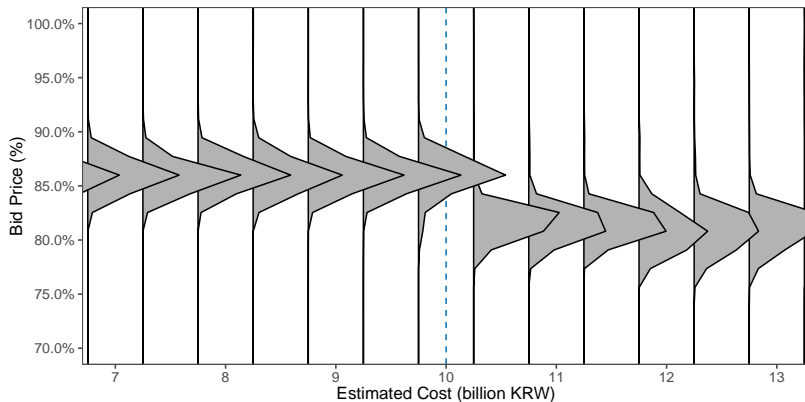


Figure: Bid Prices Around Cutoffs

Preview of Findings

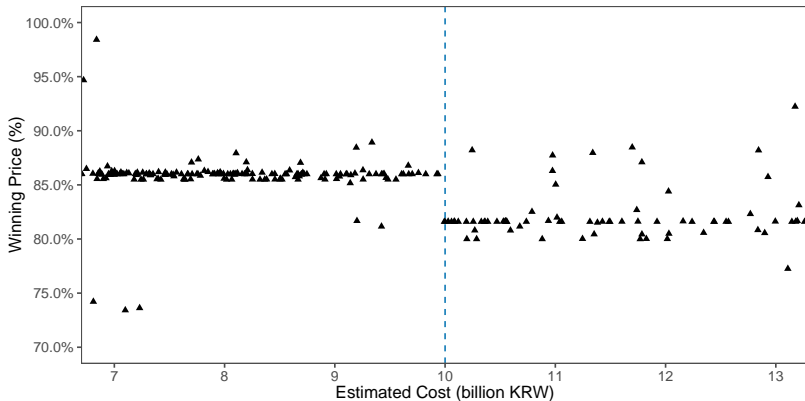


Figure: Winning Prices Around Cutoffs