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Title: *Third parties' opportunism and renegotiations in public contracts: evidence from manipulation in Italian procurement*

Long abstract

The high rate of formal renegotiation in public procurement is generally linked to aggressive bidding and *ex-ante* information asymmetry (Goldberg, 1977; Guash, 2004; Laffont and Tirole, 1993). In this tradition, renegotiations, and other contractual outcomes (cost overrun, delays, poor quality) directly follow the selection mechanism. The effect is compounded by the lack of effective enforcement to contract breaches in the form of judicial control or reputational effects (Spulber, 1990; Kim, 1998, Dosi and Moretto, 2015). Discretion in the choice of the counterpart is therefore seen as positive for complex projects and negative for more standardized objects, a view that is also consistent with a transaction costs perspective (Bajari and Tadelis, 2001).

Insights from TCE are however revisiting the issue, highlighting the positive effect of renegotiations as adaptation mechanism in a highly rigid environment (Beuve et al. 2021, Beuve and Saussier., 2021). This view pinpoints the lack of flexibility in public procurement due to the formalities of administrative law, exacerbated by the pressures of interested third parties, particularly by political competitors (Spiller, 2008, 2011). Consequently, private investors not only require safeguards against government opportunistic behaviours, but also against external interested third parties; at the same time, public administrations attempt to turn down political challenges. On the one hand, rigidity shields from opportunistic behaviours, on the other hand, it comes at the expense of flexible adjustments and possibly, contractual outcomes (Spiller and Moszoro, 2012; Moszoro et al. 2016).

Discretion in the choice of the procurer may alleviate the problem, helping the development of relational mechanisms. First empirical evidence supports the effect of political pressure on the choice of award mechanism. Notably, Chong et al. (2014) find an effect of political pressure on the choice of French public administrations to award public contracts through auctions, as opposed to negotiations. On the outcome side, there is some evidence of a positive relationship between political competition and the likelihood of renegotiation (Beuve et al., 2016; Squeren, 2016).

This paper investigates the matter further using data from procurement contracts for works issued by Italian municipalities between 2014 and 2018. We first search for evidence of the effects of political competition on the use of discretion in the choice of the counterpart. Secondly, we focus on renegotiation rates as the outcome variable, given their importance within the TCE framework. The analysis exploits an Italian 2016 reform (d.lgs. n. 50/2016) changing the thresholds regulating

discretion in the choice of the counterpart. The presence of contracts bunching in the proximity of a legal threshold (150 thousand euros) allows us to analyse the effect of political competition on the incentives to illegally manipulate contracts' project value to gain discretion. Finally, we compute a LATE of manipulation-induced discretion on the probability that the contract is renegotiated, following the methodology developed by Diamond and Persson (2016), as also adopted by Spagnolo et al. (2022) in the context of Italian public procurement.

The definition of public works given by the Italian regulation carries important theoretical consequences for a TCE interpretation of the results, somewhat limiting them. It spans from the road and urban maintenance to customized construction works, therefore bundling together transactions with heterogenous expected lengths and degrees of specialization. However, even the most simplistic work as road maintenance can include quality aspects - timing being the most visible one - that are prominent for public administrations subject to political scrutiny. As such, trust and relational mechanisms remain important. Our findings remark on these premises, as lacking a steady contractual relationship is possibly one of the reasons why municipalities manipulate contract project values to escape administrative thresholds. Particularly explicative is the case of manutention works, where public administrations are given by law a specific tool allowing for a long-term contractual relationship, the so-called *accordo quadro*. While allowing fast and flexible supply during the contractual duration, such a procedure ties in part of the budget for a pre-specified period. Our finding supports the lack of such long contracts as fostering manipulation.

Spagnolo et al. (2022) provide both a theoretical and empirical reference. They use similar techniques using data from Italian public procurement of works between 2000 and 2005 around a similar administrative threshold. However, while they investigate the difference between the incentives of elected versus appointed public administrations, we directly test the effect of political competition on a sample of elected administrations' contracts only (and for a different period). Moreover, while they analyse several contractual outcomes such as the number of bidders, contractor's productivity, and cost overrun, we explicitly focus on the probability of renegotiation.

Our investigation tests the following hypotheses: 1): *third parties' opportunism lowers the probability that public administrations manipulate contracts' project values to gain discretion, regardless of its motives (favouritism/efficiency)*; 2): *illegally gained discretion improves contractual relationships and outcomes, in particular allowing more flexible renegotiations when the contractual object is relatively complex*.

From an empirical standpoint, we follow the methodology developed by Diamond and Persson (2016) and employed by Spagnolo et al. (2022), with some modifications.¹ Such a

¹ Spagnolo et al. (2022) also use other methodologies to test and check their hypotheses, like LASSO regression.

methodology assumes that the densities of (i) the running variable, in our case contracts' project value, (ii) the covariates (our focus is political pressure), and (iii) the expected contractual outcomes would be smooth around the threshold, absent manipulation. The second assumption is that the overall number of observations does not change with the introduction of the threshold. Indeed, the main idea of the analysis is that the counterfactual scenario can be estimated by extrapolating the distributions inward into the manipulation window. Contract splitting would change the distribution outside the manipulation window, therefore making it unsuitable for counterfactual estimation and extrapolation. While Spagnolo et al. (2022) argue that contract splitting might happen in Italian procurement, they also downplay its magnitude and (plausibly) assume it does not happen within the manipulation window. We employ their methodology as a reference; however, we mainly rely on the pre-reform distribution as counterfactual (something similar is done for instance by Brown, 2013). Moreover, while they use n^{th} -degree polynomial regression to estimate the counterfactual (in line with Saez, 2010; and Chetty et al., 2012), we use local polynomial regression, as literature is increasingly showing the flaws of polynomial regressions (Gelman and Imbens, 2019).

Our findings confirm the presence of project value manipulation around the administrative threshold, while political pressure (proxied by the Herfindhal-Hirschman Index computed on electoral outcomes, following Beuve et. al, 2016) seems to be negatively associated with manipulation. However, manipulation-induced discretion appears to lower the probability of renegotiation. Notably, evidence supports the fact that manipulators are probably those municipalities lacking a long-term contractual relationship.

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