

Political competition and public procurement outcomes

Rasmus Broms*, Carl Dahlström,* and Mihaly Fazekas**

*The Quality of Government Institute, Department of Political Science, University of
Gothenburg

**School of Public Policy, Central European University

Accepted for publication in the journal of Comparative Political Studies.

21/2/2019

Abstract:

This paper asks if low political competition is associated with more restricted public procurement processes. Using unique Swedish municipal data from 2009 to 2015, it demonstrates that when one party dominates local politics, non-competitive outcomes from public procurement processes are more common. What is most striking is that the risk of receiving only one bid, on what is intended to be an open and competitive tender, considerably increases with longstanding one-party rule. The paper contributes to a significant body of work on the detrimental effects of low political competition, and the results are particularly interesting from a comparative perspective since Sweden—an old democracy with a meritocratic bureaucracy, characterized by low levels of corruption and clientelism—is a highly unlikely case in which to find such tendencies.

Introduction

Abuse of power is an omnipresent risk. Constitutions, laws, and other regulations are written from a perspective that suggests that while the ruling elite must have enough power to do good, they cannot be left unguarded to do bad. It is, for example, a common theme of the Federalist Papers, where James Madison (Hamilton, Madison and Jay [1788] 1961, 260) notes that:

...power to advance the public happiness involves a discretion which may be misapplied and abused. They will see, therefore, that in all cases where power is to be conferred, the point first to be decided is, whether such a power be necessary to the public good; as the next will be, in case of an affirmative decision, to guard as effectually as possible against a perversion of the power to the public detriment.

In democracies, at least, tendencies for such abuse should diminish with increased elite competition (Schumpeter 1947; for a related argument, including not only democracies, see Acemoglu and Robinson 2012). As a matter of fact, much of the political economy literature on rent seeking starts with the assumption that although politicians are assumed to be selfish, political competition is the principal vehicle that creates policies that benefit large parts of the electorate, rather than just the elite and their immediate followers (Besley et al 2010; Montinola and Jackman 2002; Gerring and Thacker 2004; Persson and Tabellini 2003; Rose-Ackerman 1978).

With this perspective in mind, the public procurement process is an area in which the political system is put to a critical test. Not only does public procurement today involve huge sums of money, amounting to 12 percent of worldwide GDP (Organization for Economic Cooperation and Development [OECD] 2017, 10), but these considerations are also key when it comes to political elites' interaction with business elites, wherein the former have the ability to use their position to benefit their constituency, companies to which they have connections, or themselves. As these

temptations are ubiquitous, most governance systems have, accordingly, devised legal and bureaucratic checks against them. In Europe, national and EU regulation of the common market aims to create a fair and open marketplace for government contracts. EU Public Procurement Directives are devised in order to level the playing field for all bidders, connected or not, in the interest of the polity as a whole. The civil service and bureaucratic audit systems within countries are supposed to secure compliance with the rules for open and fair access to public resources. Where such systems work, public procurement processes are consequently of much higher quality (Charron et al. 2017).

No system is bulletproof, however; in polities with long-standing incumbents, the weight of the bureaucratic balance may erode. With low political competition, for example, loyalty between otherwise neutral and independent civil servants and representatives of the party in power may develop and pervert the system of control. Moreover, politicians can strengthen their position when in power for a longer time, and build political-business networks that might in themselves generate pressure for collusion between the two spheres (Campante et al. 2009). In line with recent research in this field (Coviello and Gagliarducci 2017; Klašnja 2015), this paper argues that low political competition creates “entrenched parties,” (Folke et al. 2011, 578) able to control public procurements, and with the power to favor certain bidders, regardless of their formal merits.

Therefore, this paper asks whether low political competition—in extreme cases, one-party rule—makes it more likely for incumbents to restrict competition in public procurement processes. To this end, it also investigates the weakening of control mechanisms that have been set up to stifle such tendencies.

In order to answer this question, we turn to Swedish municipalities, arguably a least likely case of such political manipulation of the rules discussed above. We find that when one party dominates

local politics, procurement processes show non-competitive outcomes more often, while there is a directly opposite effect on turnover. Most striking is that the risk of obtaining only one bid, on what should be an open tender process, increases with political entrenchment. These results also hold up when we use other operationalizations of political and procurement competition, include a broad set of controls, and employ a wide array of estimation techniques. Moreover, further analysis suggests that entrenched parties are able to exert favoristic control over public procurement due to an amicable relationship with opposition parties, more partisan control over local audits, and lower pressure from the media.

The paper contributes to the literature in three different ways. First, our case selection is particularly important. While a number of recent studies that are interested in the micro foundations of the links between low political competition and different types of rent seeking have considerably advanced the field, they have almost exclusively researched cases already known for widespread corruption, such as Italy, Romania, and Brazil (Coviello and Gagliarducci 2017; Ferraz and Finan 2008; Klačnja 2015). Whether the same dynamics are of significant importance in a low-corruption context was far from certain, and finding the same type of empirical patterns in a country such as Sweden is therefore very informative when evaluating the universality of the link between low political competition and the risks associated with the abuse of power. Second, our study contributes to the literature on corruption voting. It theoretically describes, and empirically scrutinizes, entrenched parties' ability to control the salience of misconduct and thereby hamper accountability (Klačnja et al 2014). Third, it speaks to the New Public Management (NPM) literature (Hood 1991), as it explains how the success of externally produced goods and services are dependent on political factors, and thereby answers to a call for more studies that put NPM reforms into political context (O'Toole and Meier 2015).

Entrenched parties and public procurement

We focus on political elites in democratic states and ask about the conditions under which they are able to influence public procurement, whatever their motives might be.¹ The question under direct scrutiny is whether low levels of political competition make it more likely for incumbent rulers to override procedures that are supposed to guarantee open competition in public procurement.

The rationale behind securing public procurement from outside actors, instead of in-house production, concerns a rather straightforward market mechanism. Generally speaking, the expectation is that competition for public contracts pressures prices downward, and quality upward (Brown et al. 2006; Christoffersen et al. 2007; Donahue and Zeckhauser 2011). This expectation hinges, however, on the idea of open competition. As OECD (2011, 147) notes, public procurement is “...vulnerable to waste, fraud and corruption due to its complexity, the size of the financial flows it generates and the close interaction between the public and the private sectors.” These hazards are well known by policymakers. Public procurement processes are therefore regulated by the European Union (OECD 2011) and in all OECD member states, including Sweden, the specific case under inspection here.²

¹ There are diverse motives for elites in non-competitive settings taking advantage of their powers: Enrichment for themselves and their clique (Coviello and Gagliarducci 2017; Ferraz and Finan 2008; Fisman et al. 2014); delivering goods and services to their constituencies (Berry and Fowler 2015; Kitschelt and Wilkinson 2007; Stokes et al. 2013); and less strategic motives such as habit, loyalty, and lack of competence. This paper is, however, not designed to distinguish between the different motives for manipulating public procurement, but rather, based on previous research; it simply assumes that such risks exist.

² Swedish as well as EU public procurement rules stipulate open and fair competition as a default, with non-competitive contracting allowed only in specific well-defined cases such as national security considerations or exceptional urgency. In the case of Sweden, for example, no less than four laws regulate public procurement processes: the Swedish Public Procurement Act [*lagen om offentlig upphandling*] (2016:1145), the Act on Procurement in the Water, Energy, Transport and Postal Service Sectors [*lagen om upphandling inom områdena vatten, energi, transporter och posttjänster*] (2016:1146), the Act on Concession Procurement [*Lagen om upphandling av koncessioner*] (2016:1147), and the Defense and Security Procurement Act [*lagen om upphandling på försvars- och säkerhetsområdet*] (2011:1029).

Circumventing the law, for example by way of restricting competition, invites serious risks. First, it breaks with the purpose of opening up to outside providers of goods and services. It removes the vehicle that is supposed to decrease prices and increase quality, namely competition. Second, deliberate restriction of competition violates not only the spirit but also the letter of the law. Such restrictions cannot be written into tenders, and this, therefore, restricts the transparency that is vital for accountability. Third, single bidding invites an unhealthy relationship between entrenched municipal parties and certain firms, and therefore increases the risk of elite collusion.

Based on the robust and growing literature on the detrimental effects of low political competition, we hypothesize that there is a risk that incumbent politicians try to circumvent open competition and thereby put efficiency and quality enhancing mechanisms out of play. Starting from the idea that elite competition, and especially inter-party competition, drives up governance quality in democracies (Schumpeter 1947), a large comparative literature studying the effects on governance of electoral rules (Persson, Tabellini and Trabbi 2003), party systems (Tavits 2007), and decentralization (Gerring and Thacker 2004) has developed over recent decades. In very simplified terms, this line of research investigates, often by making broad cross-country comparisons, if there are negative correlations between institutions enhancing political competition and different forms of rent seeking (Besley et al 2010; Chang and Golden 2007; Kunicova and Rose-Ackerman 2005; Persson and Tabellini 1999).

The corrective mechanism is thought to stem from political competition, which in turn increases accountability, and thus ultimately relies on the assumption that voters punish incumbents for the misuse of power. This assumption is, however, only modestly supported by empirical studies from the related field of corruption voting. While it seems reasonably clear that voters, to some extent, cast their votes based on perceptions and experiences of corruption (Xezonakis et al. 2016), corrupt

politicians are surprisingly often re-elected (Chang et al. 2010). Recent papers have suggested that the relatively low electoral cost for corrupt politicians might be caused by the fact that opposition to corruption voting crucially depends on its political salience (Ferraz and Finan 2008; Klačnja et al. 2014).

For accountability to be efficient the misconduct must be salient. However, without meaningful political competition, the long tenures that often follow put incumbents in a position where they, to some extent, can control the salience of potential misconduct. We use the terminology from Folke et al. (2011) and refer to such parties as *entrenched* parties. In their recent paper, Coviello and Gagliarducci (2017) demonstrate that politicians' length of tenure in office indeed affects the outcomes of public procurement processes in Italy. Their findings suggest that longer time in office brings higher risk of corruption, showing that extended mayoral tenures lead to more local winners, more expensive contracts, and lower quality procurement processes in general. We argue that this is most likely an effect of long-tenured incumbents' ability to disarm internal, as well as external, monitoring functions. If these functions worked as intended, they would, when sounding the alarm, increase the salience of the issue and raise the electoral cost of such manipulations.

Controlling salience

The key conclusion from existing research is that for accountability to work as intended, issues of power abuse must be salient to voters. Therefore, it is important to understand the formal and informal monitoring mechanisms, monitoring agents' incentives, and the entrenched parties' ability to control such monitoring agents. We see five mechanisms that are potentially affected by political entrenchment and one-party dominance.

First, we should consider the possibility that the competing party, or parties, might be less likely to sound the alarm when they are electorally weak. In his seminal book *Party Government*, E. E. Schattschneider (1942, 183) describes why partisanship is not by default an effective control of a powerful local party boss:

Professional politicians as a class develop a remarkable solidarity when their privileges are attacked by the public. The bosses of the rival parties in the locality can often lend each other a helping hand. The tendency of the bosses to get together is enormously strengthened in regions where the disparity in the strength of parties is great. If one party is overwhelmingly strong and the other party is correspondingly weak, the temptation of the stronger party to annex the weaker party is very great indeed.

Second, the bureaucracy routinely faces external formal monitoring agents, such as local and national auditors. Using within country variation in Brazil, Melo et al. (2009) show that political competition actually correlates with the effectiveness of audit institutions. Moreover, they demonstrate the importance of the institutional setting—a less volatile party system and more programmatic linkage strategies make the audit institutions more effective, too. In brief, while audits and other similar functions are not expected to exert a strong curb on the abuse of public procurement in general, in highly institutionalized parts of the world, such as Sweden, they may turn out to be effective controls. An entrenched party is, however, in a better position to disarm the auditor, particularly if the auditor is in any way dependent on the incumbent, for example, for their appointment. Entrenched parties are incentivized to use their powers of appointment more aggressively exactly because they are in a situation with low risk of turnover. They do not have to pay the price of other parties doing the same thing following the next turn (Grzymała-Busse 2007).

Third, media coverage of corruption increases its salience and can therefore affect the level of corruption voting (Ferraz and Finan 2008; Klačnja et al. 2014). This can plausibly be extended to abuse of public procurement for reasons other than corruption. Investigative journalism might very well expose shady procurement deals and extensive media coverage can ensure that voters will be informed of potential political misbehavior (Svaleryd and Vlachos 2009). Gordon (2011) documents how vendors in districts crucial for the electoral success of the Republican Party initially won unusually large contracts, and then, after the Washington Post had described this as an effort at manipulation, how this effect disappeared. This check nevertheless hinges on politicians being susceptible to media critique, which is not a given in the context of low political competition (Besley and Prat 2006). However, with a larger winning margin, or outstanding political craft and experience of power, comes the opportunity, from time to time, to handle critique from outside actors, such as the media, and thus accept some electoral cost. Entrenched parties are likely therefore to be often in a position where they can ignore the risk of being scrutinized by media.

Fourth, in all contemporary states the bureaucracy provides an informal and internal check on the incumbent. Such checks introduce a relatively efficient control mechanism on politicians (Dahlström and Lapuente 2017; Miller and Whitford 2016). Charron et al. (2017) describe how procurements in Spanish municipalities are sometimes manipulated by politicians to extract rents, and explain how this hinges on politicians' ability to control bureaucrats using their power over appointments and salaries, for example. Politicians seem not only to appreciate such power, but also to know how to use it. Ting et al. (2012) show that incumbents maintain a desire to keep a patronage bureaucracy, as long as they expect to continue their winning streak, while Folke et al. (2011) demonstrate that political control over the bureaucracy can be transferred into increased

votes. Even in civil service systems, such as that in Sweden, long-standing incumbents might put a strain on the neutrality of bureaucrats. For example, bureaucrats normally have the advantage of being inside the system for the long-run. However, with low political competition, the longevity advantage attenuates and bureaucrats become more dependent on the politicians of a particular party. It is not unlikely that additional partisan loyalty follows, as entrenched parties are also able to bias applicant selection so that it is mostly those who sympathize with the party in power who get appointed (for a classic, and partly similar way of reasoning about salary levels in the bureaucracy and corruption, see Becker and Stigler 1974). Moreover, under normal circumstances the bureaucrat is the expert, but with long tenures incumbent politicians and parties are likely to become knowledgeable too, which makes them less dependent on the bureaucrats. The competence of bureaucrats has another important effect. In a study of bureaucratic turnover in India, Iyer and Mani (2012) describe how highly competent bureaucrats are less susceptible to political pressures, which indicates that with competence comes the ability to resist pressure from entrenched parties. For, as noted by Schattschneider (1942, 176), “the boss lives by bad administration.”

Fifth, and finally, entrenchment implies stronger networks with the outside community, including tighter bonds with contractors (Campante et al. 2009; Coviello and Gagliarducci 2017). Such networks are likely to increase the pressure on politicians to circumvent open competition, as well as their ability to do so. In such cases, well-connected contractors are likely to find themselves in a position to call in favors from time to time. At the same time, politicians who are satisfied with what such contractors have delivered previously are probably tempted to overlook some irregularities in order to give the contract to someone they know and trust.

Taken together, we expect a negative correlation between limited political competition and non-competitive outcomes in public procurement. Furthermore, we expect several intermediary

mechanisms to be present, namely, a co-opted opposition, a tighter political control over audits, politicians less susceptible to media critique, lower-quality bureaucracy, and tighter networks between politics and business, with more local winners of contracts.

Empirical strategy

In the remainder of the paper, we will estimate the relationship between political entrenchment and non-competitive procurement outcomes in Swedish municipalities. Such an empirical strategy, i.e. studying local-level politics within a single polity, is methodologically beneficial for at least two reasons: First, restricting the scope to a single country drastically diminishes the risk of omitted variable bias (Alt and Lassen 2003); since Sweden is a unitary state of moderate size, this risk is likely to decrease even further. Second, the sub-national level of analysis is also an effective antidote to ecological fallacies, derived from what Snyder (2001) refers to as “whole nation bias,” wherein considerable sub-national variation is made invisible in the face of national-level averages.

Furthermore, as discussed in the introduction, Sweden is an almost ideal least-likely case for the present purpose, and any affirmative conclusions will therefore expand the universe for which the theoretical expectations on political entrenchment and non-competitive outcomes presented above are applicable. Our underlying expectation is that any positive results indicating problems with institutional quality here are likely to be more limited than in contexts where politicians are generally freer to engage in illicit, clientelistic, or corrupt activities.

The case of Sweden

Sweden is a medium-sized (ten million inhabitants) European state. Despite its unitary structure, Sweden’s 290 municipalities are unusually autonomous and legally independent entities, in charge

of most public services—such as primary and secondary education, as well as child-, social- and elderly care—resulting in the majority of the country’s public servants being employed in the municipal sector (Statistics Sweden 2014). As with the national level, its proportional electoral system means that local politics tends to involve the representation of a relatively large number of parties, usually the same seven or eight that are represented in the national parliament, along with an increasing, but still limited, presence of local parties. Despite the long-standing dominance of the Social Democratic party at the national level, local politics has traditionally contained much more ideological variation, with a considerable share of municipalities ruled by center-right or rainbow coalitions (Erlingsson and Wänström 2015).

As mentioned above, studying political and institutional malpractice and dysfunctionality in a Swedish local context is particularly illuminating, considering the country’s high level of institutional quality. Despite a recent growing trend of political appointees, the nature of Swedish public administration is still decidedly meritocratic, and this remains the case also at the local level (Dahlström, et al. 2014; Garsten, et al. 2015). Each municipality has its own audit committee, responsible for overseeing the operational effectiveness of municipal operations (Swedish Association of Local Authorities and Regions [SALAR] 2014). In contrast to the body of public servants, these committees are politically appointed, but the chair is usually a representative of the opposition, and the actual audit reports are almost always written by outside experts. Furthermore, public procurement is regulated through Swedish law, which is largely based on EU Directive for this area. The explicit aim of Swedish regulation is to secure public procurement processes that seek out and take advantage of competition in order to get best value for money. The fundamental principles for public procurement in Sweden are “the principle of non-discrimination”; “the principle of equal treatment”; “the principle of transparency”; “the principle of proportionality”;

and “the principle of mutual recognition” (the Swedish Public Procurement Act, 1:9). The Swedish Competition Authority (SCA) is the designated national agency for monitoring and ensuring that competitive public procurement is achieved according to the principles previously mentioned.

Furthermore, focusing locally is likely the most appropriate level of investigation for our purpose, since pork-barrel politics has been found to have a local flavor in many democracies. In the US, for example, partisan control over federal expenditures systematically affects which districts receive funds (Kriner and Reeves 2015). Even in Sweden, there are indications of local spending for partisan purposes (Dahlberg and Johansson 2002). Other studies have shown that family ties to local politicians in Denmark—another country with high marks for its institutions—increase firm profitability, especially in industries relying on public demand (Amore-Benedsen, 2013), that children of local politicians in Sweden have higher average earnings, although there might be legitimate reasons for these so-called “dynastic political rents” (Folke et al. 2015), and that low political competition is associated with higher legal political rents in local government in Sweden (Svaleryd and Vlachos 2009; but see Bergh et al 2013). Therefore, it is reasonable to expect that biased spending will be traceable primarily at the local level.

Sweden and its municipalities is also an ideal setting in which to study public procurement processes: First, according to the SCA, public works, goods and services worth about 625 billion Swedish kronor (~\$71 billion) were bought by public entities such as municipalities, agencies and publicly owned companies in 2012. This adds up to nearly a fifth of total Swedish GDP in 2012 (SCA 2015, 14), and puts Sweden in the upper quartile in comparison with other OECD countries, where the average around that time was about 13 percent (OECD 2011, 149). Public procurement is thus a large and important part of public spending in Sweden, as it is in the rest of the OECD. Furthermore, reflecting their importance as the principal public service providers in the country,

70 percent of all procurements are made by municipalities and their companies (SCA 2015, 29). In 2016 there was a total of 18,336 open public procurement tenders in Sweden, a large majority of which was announced by municipalities and municipal companies (SCA 2018, 14). There is thus a considerable experience of handling public procurement at the local level. Finally, the object of analysis considered herein is not only politically and administratively relevant, but also decidedly local in nature. Even the lowest official EU classification of sub-national units (NUTS 3, corresponding to the county level) contains an average of 14 Swedish municipalities, and, although the 13 largest municipalities have a population exceeding 100,000, the median size is a modest 15,235 inhabitants.

Within this institutional framework, an entrenched party has some leeway to influence procurements. As mentioned above, public procurement is regulated by law and monitored locally by auditors and nationally by the SCA. While open competition is clearly stipulated in the law, there are ways to obey the letter but not the spirit of the law. The buyer could, for example, write specifications into solicitations, or invoke extreme urgency exceptions to create non-competitive outcomes. Municipal politicians cannot, however, circumvent local procurement officers. Generally speaking, local public procurement involves both politicians, on executive boards and/or the council, and bureaucrats. Biased procurement therefore has to be accepted by both parties, which under normal circumstances work against deliberate restriction of competition. But with entrenched parties the preferences of the two groups—as well as the auditors—are more likely to align.

Indeed, there are rather straightforward ways for an entrenched party to influence both auditors and bureaucrats. Parties nominate and elect auditors in the municipal council, wherein an entrenched party will tend to hold a strong position. Moreover, the council is the auditors'

principal, which among other things means that it decides on the auditors' budget and is the body that receives the auditors' reports (SALAR 2014). And while the bureaucracy in Sweden is decidedly meritocratic in principle, the protection for meritocratic recruitment and promotion is not as strong for municipal as for state employees.³ Furthermore, the highest official in the municipality—the municipal Director (*Kommundirektören*)—is appointed directly by the executive board, led by the mayor and her/his party (the Swedish Municipal Act 2017:725). In addition, the highest administrative official for each sub-board, for example on social affairs, is appointed by that board, which again would be dominated by the entrenched party.⁴

Still, although it is well known from the literature on politicization that appointees' loyalties trickle down into the organization (Lewis 2008), the bias created by a longstanding incumbent party is probably more important than the ability to directly appoint top officials and auditors. After decades with the same entrenched party (in our case, about 40 years) it is not unlikely that those bureaucrats that stay on internalize the incentives of the entrenched party, while those who will not do so, exit.

Swedish public procurement data

In Sweden, the only publicly available source of public procurement data is the EU-wide Tenders Electronic Daily,⁵ which only reports large-value contracts regulated by the EU's Public Procurement Directives. Given that this paper's main interest is municipal public procurement, we therefore also collected data on smaller contracts whose value falls below EU reporting thresholds,

³ The Swedish Instrument of Government—one of Sweden's four constitutional laws—explicitly stipulates that state employees should be appointed on meritocratic principles, while the meritocratic norm is only protected indirectly and by ordinary laws for municipal bureaucrats (Petersson 2018).

⁴ Note, however, that the exact board structure differs quite a lot between municipalities (Erlingsson and Wänström 2015).

⁵ <http://ted.europa.eu/>

but which are above national thresholds.⁶ As there is no public database of these smaller contracts, we obtained the data directly from a private data provider (Visma Opic),⁷ which in effect implements the relevant transparency provisions of the Swedish Public Procurement Act. According to the Law, tenders below the EU threshold are either published by Visma Opic directly or another local tendering portal from which Visma Opic collects the information and enters it into a consolidated database. As there is no publication requirement for direct awards below the national threshold, the database only contains such low value tenders if they were voluntarily published. Due to the fragmented and unregulated public procurement publication process, data formats and contents are very diverse and consolidation into a unique database is problematic; hence, Visma Opic manually collects and enters data where necessary and also searches for missing information where possible. The database covers the key characteristics of the tendering and contract award phases such as date of publication, contract value, name of the winning bidder, name of the buyers, or the product category of the purchase.

In spite of the laborious data collection effort of Visma Opic, data quality is an issue facing our analysis, leading us to use only those variables that are considered to be reliable enough. In total, there are 135,007 unique tenders in the database between 2009 and 2015; roughly 70 percent belonging to the national regime, and 30 percent to the EU regime (Tenders Electronic Daily). In addition, in order to increase the precision in our measures, we restrict the sample in three other important ways. First, we only use contracts awarded by local bodies, that is municipalities and municipal enterprises, which shrinks the sample to 89,951 unique tenders. Second, we remove non-competitive markets, defined in line with prior research (Charron et al. 2017). Specifically,

⁶ This contract value range was, for example, in 2015 approximately between €54,000 and €134,000.

⁷ The authors would like to express their gratitude to Visma Opic for releasing the data for scientific research.

we excluded all those markets—defined by a combination of geography (NUTS 1-level)⁸ and product group (3 digit CPV)⁹—which have less than five unique bidders winning contracts in the whole of the 2009-2015 period. This equals 521 tenders, or 0.58 percent of the sample, leading to a tender count of 89,430. Third, we removed those tenders which were cancelled or incomplete (i.e. still pending final contract award decision); this removed 6,979 and 589 tenders respectively. Combined, these conditions lead to a final sample used in the analysis numbering 81,931 tenders.¹⁰

Risks of single bidding in public procurement

Our dependent variable is a direct measure of non-competitive outcomes in public procurement. We operationalize our dependent variable as *single bidding*, i.e. only one bid being submitted in a tendering process in an otherwise competitive market, as this represents the simplest indication of restricted competition. If a municipality, during a given year, has had multiple bidders for all of its tenders, it will score a 0. If all tenders received only one bid, it will receive a score of 100. Hence, the measure we use in the municipality database is the percentage of single-bidder contracts out of all the contracts awarded by a municipality in a given year. We argue that a high percentage of single bidding in a municipality signals repeated occurrence of non-competitive tendering, which at the very least makes deliberate manipulation more likely compared to situations in which there is competitive tendering.

Our interpretation of single bidding as a risky outcome crucially depends on adequately identifying competitive markets. As discussed above, competitive markets are those with at least five unique suppliers. If a market has at least five active suppliers, it is quite likely that two of them will show

⁸ NUTS=Nomenclature of territorial units for statistics. For more info see:

<http://ec.europa.eu/eurostat/web/nuts>.

⁹ CPV=Common Procurement Vocabulary. For more info see: <http://simap.ted.europa.eu/web/simap/cpv>.

¹⁰ Please note that sample sizes may vary from analysis to analysis depending on the variables used due to missing values. For example, there are 56,305 observations with non-missing bidder number values, hence for aggregating from contract level to municipal level single bidder ratio, 56,305 observations were used.

up as non-corruptly formulated tenders. The fact that markets with less than five suppliers make up only 0.5 percent of the sample underlines that the overwhelming majority of public procurement in Sweden is done in competitive markets for products that can be supplied by a variety of companies (an alternative competitive market definition taking 10 suppliers as a cut-off point removes merely 1.4 percent of the sample, further strengthening our claim for competitive markets being the predominant market type in Sweden). In addition, as our market definition already incorporates geography (NUTS-1 regions), we expect no bias from less competitive markets in more remote or more sparsely populated regions (recall, our measure does not consider the average number of bidders, only single versus multiple bidders).

Although single bidding in competitive markets may result from a range of reasons, including incompetence, comparative research has primarily used it as a corruption risk indicator (Charron et al 2017; Coviello and Gagliarducci 2017; Klačnja 2015). While this paper is not designed to study the motivation for entrenched parties to restrict competition, it is important for us to show that single bidding might have detrimental effects. For instance, in the Swedish context, we find that non-Swedish firms winning public procurement contracts are close to ten percentage points more likely to be single bidders if they are registered in a tax haven such as Panama than if they are registered in non-tax haven countries such as Germany (figure 1). This suggests that illicit proceeds that may have been earned through single bidding contracts are then often channeled through secret jurisdictions, in order to hide money flows (Shaxson and Christensen 2013). Furthermore, and similar to findings in other countries (Fazekas and Kocsis 2017), single bidding is associated with more expensive contracts when compared to initial cost estimates produced by independent experts (there is 12.1 percent of single bidding in contracts below initial estimates,

that is, a discounted final contract value, as contrasted with 14.3 percent single bidding in contracts with on or above initial estimates, that is, no or negative discount).

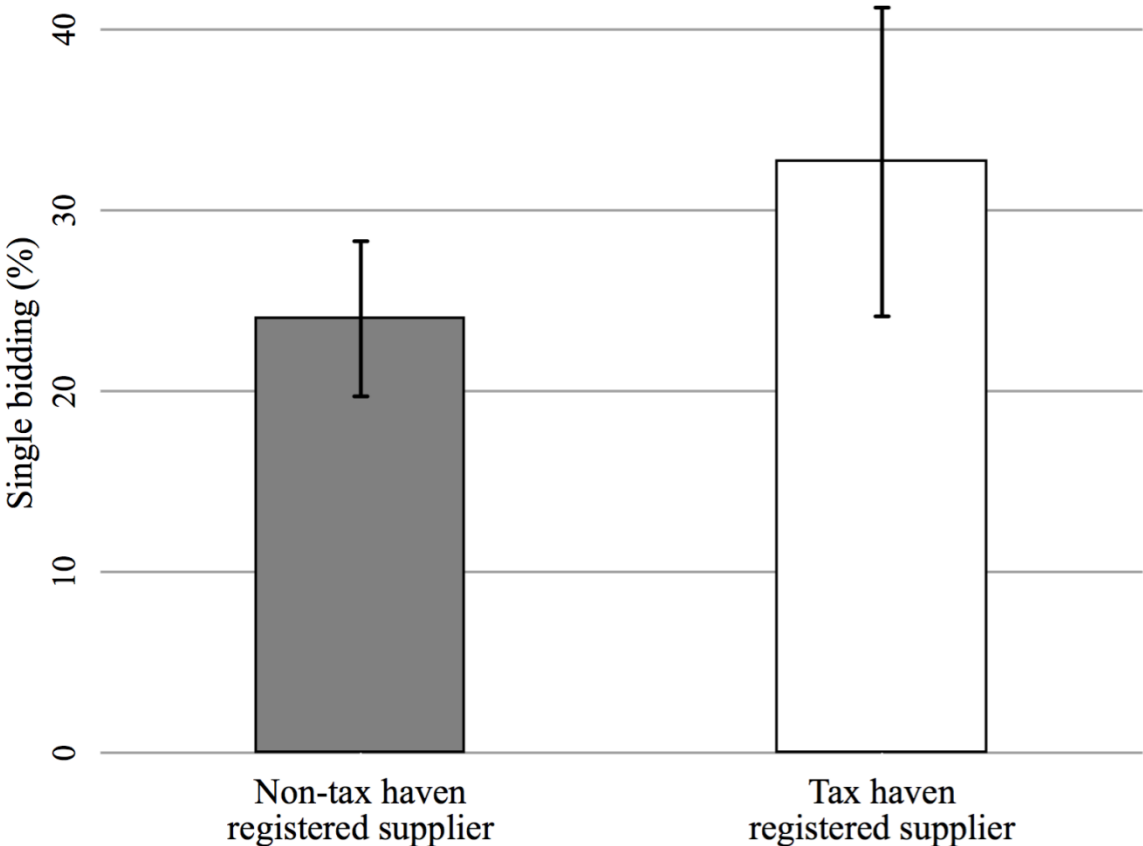


Figure 1. Comparing incidences of single bidding (%) among foreign suppliers according to the country of incorporation, Sweden, 2009-2015
Note. Differences are significant at the 93% level. N=501.

Importantly, reporting quality—due to corruption or other reasons—may bias our measurement of non-competitive outcomes. Hence, we test whether this is correlated with the dependent variable. Information can be concealed in two ways: First, municipalities may hide contracts altogether by splitting them up into smaller contracts, each falling under the national reporting threshold (e.g. about 500,000 SEK for services); second, they may omit important bits of information from public

notices, without which assessing public procurement performance is difficult (e.g. name of the winner and contract value). We measure contract concealment by calculating the proportion of advertised public procurement contract value in our database to total municipal spending on public procurement from local budget statistics,¹¹ and measure omitted information by counting the number of data points missing from seven mandatory items (buyer address, buyer post code, buyer settlement, contract value, supplier name, number of bids received, and contract award date). Quite reassuringly, at the level of municipalities, neither of these indicators is significantly correlated with the single bidding ratio (linear correlation coefficients are -0.072 and -0.002 respectively).

Independent variables

Our primary measure of political entrenchment is *one-party rule*, a dummy variable indicating whether the same party has held the highest political post (in Swedish, “kommunstyrelsens ordförande,” the chair of the executive board; henceforth “mayor”) during the entire era of modern Swedish municipalities, which began with a massive wave of mergers in the early 1970s.¹² Although coalition rule is a very common occurrence, and Swedish mayors are indirectly elected by the local assembly, Karlson and Gilljam (2016, 704) note that the mayor is the “undisputed leader of a Swedish municipality,” and local politicians consider this post to hold as much power as the municipal executive board (analogous to its government) at large (Erlingsson and Öhrvall 2017).

Although most municipalities have experienced at least one turnover in power, by as late as 2015, over a fifth of Swedish municipalities had not. It should be noted that, due to Sweden’s

¹¹ Local budget data obtained from Statistics Sweden 2017c.

Budget items considered to be indicative of total public procurement spending are total material costs and total cost of services purchased, including purchase of operations (this methodology is in line with the OECD-Eurostat methodology for measuring public procurement spending from budget statistics [Audet 2002]).

¹² See table A1 in the online appendix for a full list of Swedish municipalities and their respective one-party rule-status.

proportional electoral system, staying in power for an extended period of time requires a large measure of political skill and maneuvering, appeasing both the electorate and other parties in the municipality. For example, if the voters of a ruling party on the right, such as the Conservatives, are not satisfied with the party's rule or policies, there are three ideologically close alternatives available (the Center Party, Liberals, or Christian Democrats).

Secondly, we employ an alternative operationalization of political entrenchment through *stability*, an ordinal scale-variable indicating whether the incumbent party is new for the given term, reelected once, or reelected twice or more.¹³ Although one-party rule is likely the best representation of an entrenched political landscape, this additional measure provides a more nuanced and contrasting perspective of the earlier stages of ruling party entrenchment (length of mayoral tenure has been shown to influence procurement performance in Italy for example, see Coviello and Gagliarducci 2017). Even if strongly incentivized to embark on bending the system to its own benefit, new ruling parties are unlikely to achieve this in the short run, as permeation of the political and administrative structure, for example by strategical staffing, is bound to take time, especially in the Swedish context where meritocratic recruitment largely overshadows any type of spoils system (Dahlström et al. 2014).

Estimation strategy

To predict single bidding as a function of political entrenchment, we combine cross-sectional- and panel regressions, and contract-level matching estimators. First, as the within-municipality variation in one-party rule is too small for meaningful time-series analysis,¹⁴ we start with models

¹³ Data with reasonable reliability for ruling party exists back to 1999, following the 1998 elections. Therefore, we can go back two election cycles for each given year in our sample (i.e. in 2009, we can ascertain that an incumbent had been reelected at least twice, i.e. in the 2002 and 2006 elections).

¹⁴ Only 17 of Sweden's 290 municipalities (5.9%) lost their one-party rule-status during the 2009-15 period for which we have procurement data.

exploiting cross-municipal variation, focusing on the one full term-period contained in our sample (2011-14).¹⁵ To isolate our focal relationship, this approach calls for a fairly comprehensive set of controls. The estimations below will also consider the size of population,¹⁶ and the (logged) land area of each municipality. More populous municipalities are likely to have more competitive markets, and thus be prone to receiving a higher number of procurement offers, while working in geographically larger municipalities involves larger transaction costs that may dissuade companies from placing offers. Furthermore, we include median income as wealthier municipalities, it is quite reasonable to assume, will tend to attract more companies. We also include the identity of the ruling party, in part due to the fact that type of political leadership is likely to capture a number of otherwise immeasurable socioeconomic factors; as an example, one will find stark differences between municipalities that have only been ruled by the Social Democrats, which tend to be small industrial towns, and those that have been ruled continuously by the Conservatives, which are generally wealthy metropolitan suburbs. Furthermore, although we have no prior expectations regarding the matter, one cannot exclude the possibility that different parties operate in different ways regarding the political establishment's views and approaches to public procurement (a notion tested in the robustness section). Finally, to capture remaining unobserved variation, we include county (N=21) fixed effects.¹⁷

¹⁵ In cases of intra-term-period changes in ruling party, only the years for which the party that ruled during 2012 are taken into account. As the cross-sectional estimations are comparatively sensitive to outliers—which in turn are driven by a low number of tenders during the term period for certain municipalities—only municipalities with more than two tenders with information on single bidding recorded during the term period are included (n=275). While this strategy manages to exclude the most extreme outliers, the municipality of Dals-Ed (seven tenders during the term period) remains an outlier (one-party rule, unusually high single bidding ratio) and is dropped (see figure A1 in the online appendix for an illustration).

¹⁶ Divided into six categories: <5,000, 5-10,000, 10-15,000, 15-30,000, 30-250,000, and >250,000 inhabitants.

¹⁷ Table A2 in the online appendix displays the summary statistics of the main variables.

Second, the fact that stability contains ample within-municipality variation over time¹⁸ allows us to move to a panel format with this variable, using municipal fixed effects (FEs) on a municipal-year level dataset for 2009-2015. Perhaps the main advantage of this model is that it accounts for unobserved time-invariant municipal characteristics, which are likely to plague our goal of approximating causal identification (e.g. municipal size simultaneously determining procurement competition, hence single bidding; and political competition, hence one-party rule). As most controls employed in the one-party rule-based models vary little or not at all over time, only median income and party fixed effects remain in the fixed effects models, while year fixed effects are introduced. Since single bidding ratio is only weakly autocorrelated, we mainly rely on static estimations, but also present dynamic panel estimations, including a lagged dependent variable (LDV).¹⁹ This specification is, however, problematic on two grounds: First, it is well-known that introducing LDVs in FE-models give rise to Nickell bias, resulting in inconsistent estimates, especially in shorter panels such as the present one. Second, the LDV also removes 15 percent of all observations (i.e. all cases in 2009). As a solution for the former issue (but—notably—not the latter), we employ system- and difference-GMM. A further benefit of the GMM-framework is that it allows for considering the possibility of endogeneity even further; herein we treat stability as predetermined.

Third, we also carry out a contract-level propensity score matching analysis, interpreting one-party rule as the control condition and multi-party rule as the treatment.²⁰ In order to fully reflect the degrees of treatment captured by the stability variable (i.e. reelection only once or reelection twice

¹⁸ 169 municipalities (59%) had a change in stability status during the 2009-15 period.

¹⁹ The correlation coefficient between single bidding and its one-year lag is weakly positive ($r=0.13$; $p<.001$); a Wooldridge (2002, see also Drukker 2003) test of serial correlation demonstrates that the hypothesis of serial correlation fails the 95% level of significance ($p=0.09$).

²⁰ For the sake of brevity in the main text, we delegated the details of the matching analysis to the online appendix.

or more), we also include matching with treatment conditions of one, as well as two or more, reelections. The added value of the contract-level matching, on top of the cross-sectional and panel data analyses, is that it takes into account contract-level variance such as contract value distribution, which the organization-level analyses can only reflect imperfectly. In addition, contract-level matching is perfectly suited to deliver tight comparisons of the most similar contracts awarded by treatment and control municipalities, further addressing the potential biases of comparing dissimilar contracts.

In summation, while we lack robust causal identification using random assignment, our diverse set of models aim to address the major sources of observed and unobserved confounders that we can think of, across municipalities, within municipalities, and at contract level. While none of the approaches on their own warrant causal interpretation, taken together we posit that they suggest that there is a causal link, rather than mere correlation.

Results

To recapitulate, our overarching hypothesis is that politically entrenched municipalities will have less well-functioning public procurement processes, resulting in higher single bidding ratios, while new ruling parties will be associated with lower single bidding ratios. Below, we present the results of the main tests of this link, followed by a series of robustness tests, and an investigation into the proposed mechanisms through which any such relationship is likely to flow.

Main results

First, a simple bivariate look offers initial support to the entrenchment hypothesis. As evident from figure 2, one-party-rule-municipalities are indeed associated with a higher propensity for single bidding. Compared to equivalents that have experienced turnover, the single bidding ratio in such

municipalities is 3.3 points higher, an increase of 29 percent. Contrastingly, municipalities with a new ruling party score 1.9 points (17 percent) lower in single bidding than municipalities with once-re-elected parties, and 2.4 points (22 percent) lower than incumbents with even longer tenures.

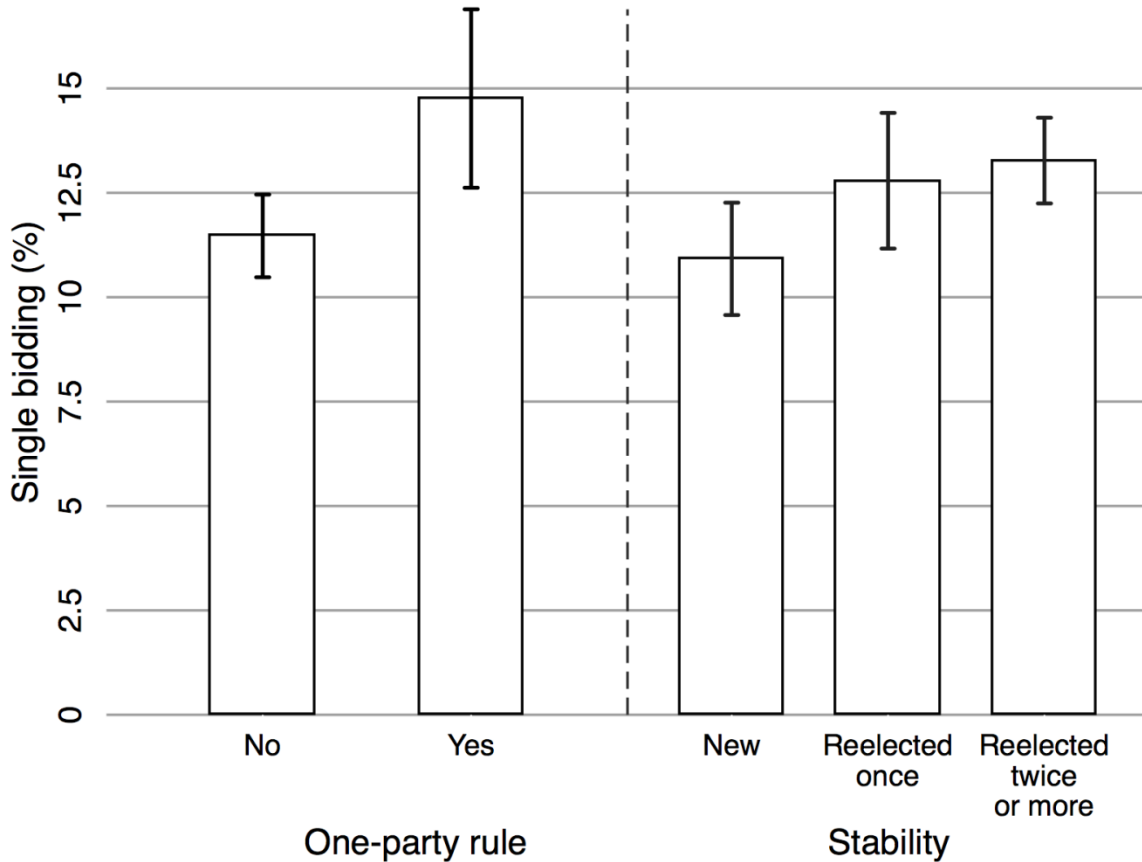


Figure 2. Political entrenchment and single bidding ratio

Note. One-party rule: n=275; full results in column 1, table 2. Stability: n=1,901; full results in column 1, table 3. Estimations using stability include municipality-fixed effects. Capped lines display 95% confidence intervals using robust standard errors for one-party rule and standard errors clustered at the municipal level for stability.

For one-party rule, this relationship is only marginally weakened with the introduction of control variables, which work in the expected direction (sparsely populated, poor, and geographically large municipalities significantly predict higher single bidding). The fully controlled estimation (table 1, column 7) has one-party rule associated with 3.1-point ($p < 0.01$) higher single bidding ratio. The

notion that long-term political entrenchment is related to restricted competition is thereby supported.

Table 1. Single bidding ratio and one-party rule

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
One-party rule	3.29*** (1.20)	2.90** (1.17)	3.13*** (1.18)	2.98** (1.18)	2.68** (1.23)	3.07*** (1.18)	3.13*** (1.13)
Area (log)			1.17*** (0.37)				0.07 (0.69)
Median income				-0.07*** (0.02)			-0.08** (0.04)
		Population					
5-10,000		-7.15* (3.63)					-4.44 (3.67)
10-15,000		-8.53** (3.49)					-4.45 (3.73)
15-30,000		-7.33** (3.44)					-2.67 (3.62)
30-250,000		-9.48*** (3.36)					-5.11 (3.54)
>250,000		-9.41*** (3.36)					-5.60 (3.62)
Constant	11.47*** (0.50)	19.43*** (3.34)	3.88 (2.40)	26.33*** (4.95)	12.18*** (0.73)	10.15*** (0.89)	34.92*** (11.30)
Observations	275	275	275	275	275	275	275
R ²	0.03	0.09	0.07	0.07	0.05	0.15	0.21
Party FEs					X		X
County FEs						X	X

Note. Dependent variable: Single bidding ratio. Data averaged for the 2011-14 term period. Robust standard errors in parentheses; *** p<0.01 ** p<0.05 * p<0.1

Next, we shift focus to our secondary operationalization of political entrenchment, stability. The results are in line with the bivariate findings, as well as the results from the analysis on one-party rule above. In brief, we observe a consistent positive association between being reelected and higher single bidding ratios. The introduction of controls do little to shake this observation; coefficient sizes remain highly stable, although the significance levels for both reelection

categories (once, and twice or more) oscillate between the 95 and 90 percent level of significance. The fully controlled static estimation (column 5) reveals that, concordant with expectations, the coefficient for reelected once is smaller than for reelected twice or more, but while the former lands at the stronger side of the 95 percent threshold of significance ($p=.046$), the latter ends up on the weaker side ($p=.054$). When introducing a lagged dependent variable (LDV) (column 6), reelected once remains significant ($p=.052$), while reelected twice or more loses significance ($p=.244$). Considering that this estimation is associated with Nickell bias, columns 7 and 8 present the GMM-results, more appropriate to handle the LDV. Here, the coefficient sizes for both reelected once and reelected twice or more increase compared to all FE estimations, although significance for the latter remains at the 90 percent level in the system-GMM estimation ($p=.062$). The insignificant coefficient for the LDV in these specifications does, however, lead us to conclude that the static FE-estimator (column 5) is our preferred specification. Despite a modest measure of heterogeneity stemming from the choice of modeling technique, we can detect a consistent and positive association between stability and increased single bidding. While the greater part of this link appears rather immediately with the first reelection, the generally larger coefficient sizes for reelected twice or more, along with the preceding findings regarding one-party rule, hint at a process that compounds over time.

In summation, while these approaches individually lack the makings of hard causal inference, the combination of the extensive controls in the cross-sectional framework with the fixed effects and GMM-estimation should, at the very least, alleviate the vast majority of potential objections about spuriousity, endogeneity, and omitted variable bias.

Table 2. Single bidding ratio and stability

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Fixed effects panel modeling						Sys-GMM	Diff-GMM
Reelected once	1.87** (0.93)	1.70* (0.94)	2.12** (0.95)	1.86* (0.97)	1.98** (0.99)	2.31* (1.18)	2.78** (1.28)	3.56** (1.47)
Reelected twice or more	2.35** (1.16)	2.22* (1.15)	2.87** (1.33)	2.29** (1.16)	2.60* (1.35)	1.74 (1.49)	3.21* (1.72)	5.43** (2.60)
LDV						-0.16*** (0.04)	0.02 (0.04)	0.00 (0.04)
Area (log)							1.95 (1.19)	
Median income		0.07*** (0.03)			0.03 (0.14)	0.04 (0.15)	-0.10*** (0.04)	-0.13 (0.25)
Population								
5-10,000							-6.49 (4.53)	
10-15,000							-6.47 (4.59)	
15-30,000							-5.21 (4.64)	
30-250,000							-6.68 (4.59)	
>250,000							-10.45** (4.87)	
Constant	10.92*** (0.69)	-3.97 (5.68)	11.87*** (0.77)	8.52*** (1.12)	2.66 (28.69)	4.42 (32.62)	0.00 (0.00)	
Observations	1,901	1,901	1,901	1,901	1,901	1,576	1,576	1,286
No. Municipalities	288	288	288	288	288	284	284	276
R ²	0.00	0.01	0.01	0.02	0.02	0.05		
Municipality FEs:	X	X	X	X	X	X		
Party FEs:			X		X	X	X	X
Year FEs:				X	X	X	X	X
County FEs:							X	
AR1 (p)							0.000	0.000
AR2 (p)							0.847	0.816
Hansen J statistic (p)							0.748	0.622
No. Instruments							93	52

Note. Dependent variable: Single bidding ratio. Robust standard errors in parentheses; *** p<0.01 ** p<0.05 * p<0.1). Stability reference category: New ruling party. Fixed effects: Standard errors, clustered at the municipal level, in parentheses. GMM models use the twostep estimator with Windmeijer correction; stability and LDV treated as predetermined and instrumented GMM-style (lag depth 1-4). Other covariates treated as exogenous and instrumented IV-style.

Robustness

To further ascertain the robustness of our findings, a number of alterations to the original estimation strategies were devised. In turn, we made adjustments to our modeling specifications, our focal variables, and explored heterogeneities in the results.²¹

First, as already mentioned in the discussion on estimation strategy, and in order to ascertain that our results are not driven by contract-level variance masked by aggregating to the municipal-period level (e.g. sectoral structure of spending), we shifted the unit of observation to the contract level. Such a high degree of granularity allows for controlling for contract characteristics that are likely to influence bidder numbers. In addition, employing propensity score matching also represents an alternative specification to the regression techniques used in the main analysis (tables A3-A8; figures A1-A4). Additionally, we estimated one-party rule with all available data using the between-estimator, as well as pooled OLS with errors clustered at the municipal level (table A9). Both sets of analysis yield results in line with the main results presented above. We also estimate stability in the cross-sectional context (table A10). This specification allows us to leverage the data from an extra term-period back in time, increasing the number of categories to include elected three times or more. Furthermore, shedding the focus on within-municipality allows us to add one-party rule as a fifth category. The results, which are most comparable to the cross-sectional estimations using one-party rule, show that municipalities with one-party rule are most prone to single bidding. Furthermore, new ruling parties are significantly less likely to display single bidding than all categories of reelected incumbents. Interestingly, the coefficient for the reelected three times or more category is relatively small, hinting at heterogeneity within this group that we, unfortunately cannot explore further using the available data.

²¹ Full results for these estimations are available in the online appendix.

Second, we re-specified both the main independent and dependent variables. For the former, we substituted our original measures of political competition for one capturing the vote share of the ruling party (table A11). While, as we argued above, entrenchment is most likely mainly a result of temporal factors, a stronger mandate from voters is likely to make incumbents more comfortable in influencing bureaucratic affairs. The results are not particularly strong, but they do consistently display a positive relationship between vote shares and single bidding; for our preferred (fully controlled static FE) specification, a one-percentage point increase in mayoral party vote share is associated with a 0.16 increase in single bidding ratio ($p=.1$). For the dependent variable, we relaxed the assumption of linearity by predicting the likelihood of a municipality-year having no single bids at all (table A12). Further, we substituted the dependent variable to measure the (discounted) average number of bids, an approach acknowledging the possibility that a municipality consistently receiving only two bidders, but never only one, may plausibly be considered to have lower competition than a municipality receiving a large number of bidders for almost all tenders, but occasionally only receiving a single bid (table A13).²² These altered estimations garner results in the same direction as the analysis above, bolstering our main finding of a negative relationship between political entrenchment and competition in public procurement, especially in the long-term.

Finally, we accounted for the possibility of unobserved heterogeneity in the results. Two factors stand out as particularly relevant for our case: the size and political composition of a given municipality. As Rose-Ackerman (1999, 101) notes, collusion is more easily maintained in smaller settings, where there tends to be a more limited number of actors involved in such activity.

²² The discount, calculated as $1/(\text{number of bidders}^2)$, is used with the consideration that receiving a second bid adds exponentially more actual competition than a fifth or thirtieth bid would do.

Furthermore, regardless of whether the goal is corruption or simply pragmatism, smaller municipalities may also be a context more conducive to a higher degree of the informalism inherent in the political-bureaucratic-business nexus, in turn leading to the political sphere having a comparatively larger sway over bureaucratic matters like public procurement. Thus, there is reason to believe that simply including population as a control—as we did in the original estimations of one-party rule and the system-GMM estimation with stability—fails to sufficiently account for its influence. Therefore, we reran the stability-estimations with the sample split down the median in terms of population size (15,190.5) (table A14).²³ Indeed, the results strongly indicate that political entrenchment is more cogent in smaller municipalities, whose negative coefficient in this setting dramatically increases to nearly twice its original size, while it is rendered null in large municipalities. The same trend is observable for one-party rule; its interaction with the log of population size reveals a positive and strongly significant relationship in small municipalities and an (insignificantly) negative link in large ones. The break-even point appears around the fourth quartile (33,760.5 inhabitants) (Table A15, figure A5). Furthermore, the main results could plausibly be conditioned by the identity of the entrenched party – a question of particular relevance in Sweden due to the relative historical dominance of the Social Democratic party. Inter-party differences are, however, not dramatic; both when measured as one-party rule and stability, entrenched parties consistently have higher single bidder ratios, regardless of which party is in charge (Table A16 and A17; Figure A6 and A7).

Mechanisms

Next, we turn to the specific mechanisms accounting for why and how political entrenchment may decrease competition in public procurement. In the theoretical discussion, we identified five

²³ Measured for the year in the sample period with the smallest population, which in most cases is the first year (2009).

potential intermediary mechanisms through which this relationship could operate. First, the opposition in a politically entrenched landscape will tend to be more lenient toward the ruling bloc. Second, political entrenchment may suppress external monitoring functions like audit committees within a polity. Third, entrenched rulers are similarly less susceptible to media critique. Fourth, entrenched politicians may also silence potential critique internally by ensuring that their own competency is not rivaled by local bureaucrats. Fifth, networks between politicians and local business may have had a longer time to develop when one party has ruled for an extended period of time.

Using cross-sectional averages for 2011-2014, we first analyze the respective associations between one-party rule and indicators capturing the respective suggested mechanisms. We then estimate the association between these mediating variables and single bidding ratio. First, the oppositional role of the political opposition is captured through a survey item describing the relations between the political majority and opposition (data from a 2012-13 survey of local politicians, Gilljam and Karlsson 2013; question framed “The relations between majority and opposition in my municipality are good”). Second, external monitoring is operationalized as whether the chair of the municipal audit committee comes from the ruling majority (data from Statistics Sweden 2017a, complemented by data collection by the authors). Third, media sensitivity is captured using a survey question for politicians in the ruling majority on the extent to which election promises come to fruition through local media pressure (again using data from Gilljam and Karlsson 2013). Fourth, for the internal control mechanism, we estimate human capital in the bureaucracy—measured as the share of municipal employees with post-secondary education (data from Kolada, n.d.a). Finally, we estimate local networks as the share of local winners in municipal public procurement (using our own data, provided by Visma Opic). Each relationship is tested bivariately

and with the full set of control variables (i.e. population, area, median income, ruling party ID, and regional FEs).²⁴

The results, displayed in Figure 3, tell a mixed but predictable story. All of the relationships are in the expected direction, although not all are significant in both steps. Once the battery of controls are considered, majority-opposition relations are significantly better in one-party rule-municipalities, while also predicting (at the 90 % level of confidence) higher levels of single bidding (panel A). Second, although one-party rule strongly predicts majority-chaired audit committees, this is in turn only insignificantly related to more single bidding (panel B). On the other hand, media influence (panel C) is significantly lower in one-party rule municipalities and predicts lower levels of single bidding itself. While bureaucratic human capital, as expected, predicts lower single bidding (panel D) and the bivariate association between one-party rule and bureaucratic human capital is strongly negative, this does not hold for the inclusion of controls. Finally, local winner ratio (panel E) is positively yet insignificantly related to one-party rule and single bidding.

The fact that all relationships go in the expected direction, but display varying strength and sensitivity to account for structural factors, points to a multi-causal story, in which certain plots are more convincing than others. Fierce political opposition, more rare where entrenchment has set in, appears to be a moderate boost to procurement competition. While it seems like the audit function is indeed weaker in one-party municipalities, its potency for ascertaining competitive

²⁴ The media accountability model includes a measure of newspaper coverage, estimated as the ratio of local newspaper subscriptions to number of households, to ensure that this factor does not drive both entrenchment and politicians' sensitivity to journalists (data from TI Mediestatistik n.d.). Similarly, for human capital in bureaucracy, the human capital of the local population at large (operationalized as share of inhabitants with higher education, using data from Statistics Sweden 2017b) as well as a measure of the level of outsourcing in general (data from Kolada n.d.b) were included as a further check that it is not the general level of education in the population or differences in the composition of municipal tasks that drive both political entrenchment and human capital in the bureaucracy.

procurement is itself only marginal. Conversely, the media appears to be a more important external check. Similarly, highly skilled bureaucrats appear to be able to use their “alarm” function to a higher degree in turnover municipalities, with better procurement as a result, although contextual factors seem to be playing a large role here. Finally, we find only very weak evidence of local networks disproportionately influencing the procurement process.

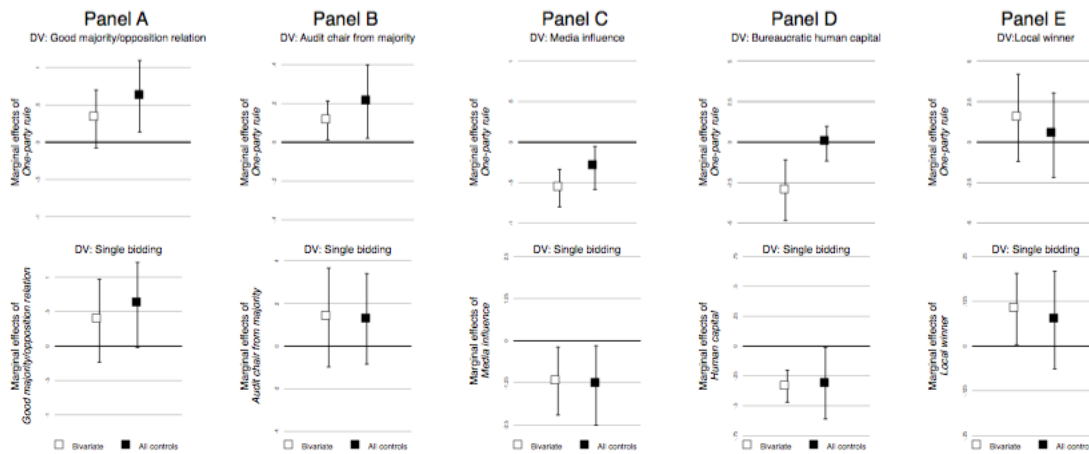


Figure 3. Mechanisms

Note. Data averaged for the 2011-14 term period. Capped lines display 95% confidence intervals using robust standard errors. Values for controls are set at Ruling party=Social Democrats, Population=30-250,000 Region=Västra Götaland, while (log) Area and Median income, as well as Newspaper coverage (panel C), and Higher education and Outsourcing (panel D), are set at their mean values. Estimates based on regressions displayed in full in tables A18-A22 in the online appendix.

Conclusions

We have suggested that the tendency for ruling politicians to manipulate public procurement processes at the expense of the general public is stronger when political competition is low. Employing a unique dataset, including information about local political competition going back decades in time, public procurement contracts between 2009 and 2015, and a large set of other relevant variables in Swedish municipalities, our results demonstrate that when political competition is low—and especially when one party dominates the political landscape for a long

time—public procurement processes indeed show signs of manipulation, as they are less competitive. Although marginally weaker, we also observe that this trend dissipates when a new ruling party assumes power. These results are robust to a large number of alterations of estimation strategy, and compounded in smaller municipalities, where these problems are already disproportionately severe. Moreover, we propose that when one party dominates the political scene, the control mechanisms within the political system—external as well as internal—will tend to erode, thus facilitating the influencing of procurement.

Considering its strong history of programmatic parties and low levels of corruption and clientelism, Sweden, in all likelihood approximates a true least-likely case. Thus, our study stands in sharp contrast to recent papers in the same vein, which have tended to focus on young democracies and/or institutionally weak settings (Coviello and Gagliarducci 2017; Klačnja 2015). Furthermore, the results corroborate a fundamental expectation in the political economy literature, showing how low political competition goes together with bad government (Gerring and Thacker 2004; Montinola and Jackman 2002; Persson and Tabellini 2003; Rose-Ackerman 1978). This is an important contribution in itself; as such an association has previously mostly been studied on the aggregate level, and between countries. Our study also advances knowledge of how entrenched parties can take advantage of the bureaucratic apparatus (Folke et al. 2011), findings that could shed new light on why corrupt politicians are surprisingly often re-elected (Chang et al. 2010); if the salience of corruption is critical for corruption voting, as recently suggested (Ferraz and Finan 2008; Klačnja et al. 2014), then by disarming the mechanisms that could otherwise draw voters' attention to the issue, the entrenched party holds a considerable advantage.

Finally, our results are also relevant for policymakers and scholars in public administration. This study implies that advocates of marketization in the public sector, and students thereof, should pay

close attention not only to the administrative, but also to the party political context in which such *New Public Management* (NPM) reforms are implemented (Hood 1991; Osborn and Gaebler 1992; Pollitt and Bouckaerd 2011). To some extent, it therefore answers O’Toole and Meier’s (2015) call for a more general theory of public management that also takes the political context into account. The last decades have seen a dramatic increase in public procurement and other NPM-related reforms (Brown et al. 2006; Hood and Dixon 2015) and while creating a market for, say, infrastructure or elderly care might hold potential for increased productivity in theory, such reforms might instead risk being turned into partisan assets in the hands of local party bosses.

References

- Acemoglu, D. and Robinson J. 2012. *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*. Random House Digital Inc.
- Alt, James, and David Lassen. 2003. "The Political Economy of Institutions and Corruption in American States". *Journal of Theoretical Politics*, 15(3): 341-365.
- Amore, Mario Daniele and Morten Bennedsen. 2013. "The value of local political connections in a low-corruption environment". *Journal of Financial Economics* 110(2): 387-402.
- Audet, Denis. 2002. "Government Procurement: A Synthesis Report". *OECD Journal on Budgeting*, 2(3), 149–194.
- Beck, Nathaniel, and Jonathan N. Katz. 1995. "What to Do (and Not to Do) with Time-Series-Cross-Section Data." *American Political Science Review* 89 (3):634-47.
- Beck, Nathaniel, and Jonathan N. Katz. 2009. "Modeling Dynamics in Time-Series-Cross-Section Political Economy Data." *Annual Review of Political Science* 14: 331-352.
- Becker, Gary, and George Stigler. 1974. "Law Enforcement, Malfeasance, and the Compensation of Enforcers." *Journal of Legal Studies* 3:1-19.
- Bergh, Andreas, Gissur Erlingsson, Mats Sjölin and Richard Öhrvall. 2013. *Allmän nytta eller egen vinning? En ESO-rapport om korruption på svenska*. Stockholm: Fritzes.
- Berry, Christopher and Anthony Fowler. 2015. "Cardinals or Clerics? Congressional Committees and the Distribution of Pork". *American Journal of Political Science*.
- Besley, Timothy and Andrea Prat. 2006. "Handcuffs for the Grabbing Hand? Media Capture and Government Accountability". *The American Economic Review* 96(3): 720-736.

- Brown, Trevor, Matthew Potoski, and David Van Slyke. 2006. "Managing Public Service Contracts: Aligning Values, Institutions and Markets". *Public Administration Review* 66(3): 323-333.
- Besley, Timothy, Torsten Persson, and Daniel Sturm. 2010. "Political Competition, Policy and Growth: Theory and Evidence from the US". *Review of Economic Studies* 77 (2010): 1329-1352.
- Campante, Filipe, Davin Chor and Qioc-Anh Do. 2009. Instability and the Incentives for Corruption. *Economics and Politics* 21(1): 42-92.
- Chang, Eric and Miriam Golden. 2007. "Electoral systems, district magnitude and corruption". *British Journal of Political Science* 37(1): 115-137.
- Chang, Eric, Miriam Golden and Seth Hill. 2010. "Legislative Malfeasance and Political accountability". *World Politics* 62(2): 177-220.
- Charron, Nicholas, Carl Dahlström, Mihály Fazekas, and Victor Lapuente. 2017. "Careers, Connections, and Corruption Risks: Investigating the impact of bureaucratic meritocracy on public procurement processes". *Journal of Politics* 79(1): 89-103.
- Christoffersen, Henrik, Martin Paldam, and Allan Wurtz. 2007. "Public versus Private Production and Economies of Scale." *Public Choice* 130: 311-328.
- Coviello, Decio and Stefano Gagliarducci. 2017. "Tenure in Office and Public Procurement." *American Economic Journal: Economic Policy* 9(3): 59-105.
- Dahlberg, Matz and Eva Johansson. 2002. "On the Vote-Purchasing Behavior of Incumbent Governments". *American Political Science Review* 96(1): 27-40.

- Dahlström, Carl, Olle Folke, and Johanna Rickne. 2014. "Rekrytering av tjänstepersoner i den kommunala sektorn." In David Karlsson and Mikael Gilljam, eds., *Svenska Politiker: Om de folkvalda i riksdag, landsting och kommun*. Stockholm: Santérus förlag, 235-54.
- Dahlström, Carl and Victor Lapuente. 2017. *Organizing Leviathan. Politicians, Bureaucrats, and the Making of Good Government*. Cambridge: Cambridge University Press.
- Donahue, John D. and Richard Zeckhauser. 2011. *Collaborative Governance: Private Roles for Public Goals in Turbulent Times*. Princeton, NJ: Princeton University Press.
- Drukker, David M. 2003. "Testing for Serial Correlation in Linear Panel-Data Models." *Stata Journal* 3 (2): 168-77.
- Erlingsson, Gissur Ó., and Johan Wänström. 2015. *Politik och förvaltning i svenska kommuner*. Lund: Studentlitteratur.
- Erlingsson, Gissur Ó., and Richard Öhrvall. 2017. "Fullmäktigeledamoten och mandatperioden." SKL report, March 30, 2017. <http://webbutik.skl.se/sv/artiklar/fullmaktigeledamoten-och-mandatperioden.html> (accessed May 12, 2017).
- Fazekas, Mihály, and Gábor Kocsis. 2017. "Uncovering High-Level Corruption: Cross-National Corruption Proxies Using Government Contracting Data". *British Journal of Political Science*, available online.
- Ferraz, Claudio and Frederico Finan. 2008. "Exposing Corrupt Politicians: The Effect of Brazil's Publicly Released Audits on Electoral Outcomes". *The Quarterly Journal of Economics* May (2008): 703-745.
- Fisman, Raymond, Florian Schulz, and Vikant Vig. 2014. "The Private Returns to Public Office". *Journal of Political Economy* 122(41): 806-862.

- Folke, Olle, Shigeo Hirano, and James Snyder. 2011. "Patronage and Elections in US States", *American Political Science Review* 105 (3): 567-585.
- Folke, Olle, Torsten Persson, and Johanna Rickne. 2015. "Dynastic Political Rents? Economic Benefits to Relatives of Top Politicians". Unpublished paper, Uppsala University, IIES, Stockholm University, CIFAR, and Research Institute of Industrial Economics.
- Garsten, Christina, Bo Rothstein and Stefan Svallfors. 2015. *Makt utan mandat*. Stockholm: Dialogos.
- Gerring, John and Strom Thacker. 2004. "Political Institutions and Corruption: The Role of Unitarism and Parliamentarism". *British Journal of Political Science* 34: 295-330.
- Gilljam, Mikael and David Karlsson. 2013. *The Swedish Regional and Local Council Survey (KOLFU) 2012*. University of Gothenburg: Department of Political Science and School of Public Administration.
- Gordon, Sanford. 2011. "Politicizing Agency Spending Authority: Lessons from a Bush-era Scandal". *American Political Science Review* 105(4): 717-734.
- Grzymała-Busse. 2007. "Political Competition and the Politicization of the State in East Central Europe." *Comparative Political Studies* 36 (10): 1123-47.
- Hamilton, Alexander, James Madison, and John Jay. [1788] 1961. *The Federalist Papers*. New York: New American Library.
- Hood, Christopher. 1991. "A New Public Management for All Seasons." *Public Administration* 69(1): 205-214.
- Hood, Christopher and Ruth Dixon. 2015. *A Government that Worked Better and Cost Less? Evaluating Three Decades of Reform and Change in UK Central Government*. Oxford: Oxford University Press.

- Hyytinen, Ari, Lundberg and Otto Toivanen. 2008. “Politics and Procurement: Evidence from Cleaning Contracts.” HECER Discussion paper No. 233.
- Imbens, Guido, and Jeffery Wooldridge. 2009. “Recent Developments in the Econometrics of Program Evaluation”. *Journal of Economic Literature*, 47(1), 5–86.
- Iyer, lakshimi and Anandi Mani. 2012. “Traveling Agents: Political Change and Bureaucratic Turnover in India”. *The Review of Economics and Statistics* 94(3): 723-739.
- Karlsson, David, and Mikael Gilljam. 2016. “Cost of Ruling in Local Elections: The Case of Sweden.” *Lex Localis* 14 (3): 695-714.
- Kitschelt, Herbert and Steven Wilkinson. 2007. “Citizen-politician linkages: an introduction”. In Herbert Kitschelt and Steven Wilkinson, eds., *Patrons, Clients, and Politics*. New York: Cambridge University Press, 1-49.
- Klašnja, Marko. 2015. Corruption and the Incumbency Disadvantage: Theory and Evidence. *Journal of Politics*, 77(4), 928–942.
- Klašnja, Marko, Joshua Tucker and Kevin Deegan-Krause. 2014. “Pocketbook vs. Sociotropic Corruption Voting”. *British Journal of Political Science* 46: 67-94.
- Kolada. n.d.a “Anställda med eftergymnasial utbildning, kommun, andel (%)” (N00218). <http://www.kolada.se/> (accessed May 26, 2017).
- Kolada. n.d.b ”Köp av egentlig verksamhet totalt, andel (%)“ (N00803). <http://www.kolada.se/> (accessed October 26, 2018).
- Kriner, Douglas and Andrew Reeves. 2015. “Presidential Particularism and Divide-the-Dollar Politics”. *American Political Science Review* 109(1): 155-171.
- Kunicová, Jana and Susanne Rose-Ackerman. 2005. “Electoral rules as constraints on corruption”. *British Journal of Political Science* 35(4): 573–606.

- Lewis, David. 2008. *The Politics of Presidential Appointments*. Princeton: Princeton University Press.
- Melo, Marcus, Carlos Pereira, and Carlos Figueiredo. 2009. "Political and Institutional Checks on Corruption". *Comparative Political Studies* 42(9):1217-1244.
- Miller, Gary and Andrew Whitford. 2016. *Above Politics. Bureaucratic Discretion and Credible Commitment*. Cambridge: Cambridge University Press.
- Montinola, Gabriella and Robert Jackman. 2002. "Sources of Corruption: A Cross-Country Study". *British Journal of Political Science* 32(1): 147-170.
- OECD (Organization for Economic Cooperation and Development). 2011. "Competition and Procurement: Key Findings." Paris: OECD Publishing.
- OECD (Organization for Economic Cooperation and Development). 2017. *Government at a Glance*. Paris: OECD Publishing.
- Osborne, David and Ted Gaebler. 1992. *Reinventing Government: How the Entrepreneurial Spirit Is Transforming the Public Sector*. Reading: Addison-Wesley.
- O'Toole, Laurence J. and Kenneth J. Meier. 2015. "Public Management, Context, and Performance: In Quest of a More General Theory". *Journal of Public Administration Research and Theory* 25: 237–56.
- Persson, Torsten and Guido Tabellini. 1999. "The size and scope of government: Comparative politics with rational politicians". *European Economic Review* 43 (1999): 699-735.
- Persson, Torsten and Guido Tabellini. 2003. *The Economic Effects of Constitutions*. Cambridge: The MIT Press.
- Persson, Torsten, Guido Tabellini, and Francesco Trebbi. 2003. "Electoral Rules and Corruption". *Journal of the European Economic Association* 1(4): 958–989.

- Petersson, Olof. 2018. *Den offentliga makten*. Lund: Studentlitteratur.
- Pollitt, Christopher and Geert Bouckaert. 2011. *Public Management Reform: A Comparative Analysis: New Public Management, Governance and the Neo-Weberian State*. Oxford: Oxford University Press.
- Rose-Ackerman, Susanne. 1978. *Corruption: A study in political economy*. New York: Academic Press.
- Rose-Ackerman, Susanne. 1999. *Corruption and Government: Causes Consequences, and Reform*. Cambridge: Cambridge University Press.
- Schattschneider, Elmer Eric. 1942. *Party Government*. New York: Holt, Reinhart and Winston.
- Schumpeter, Joseph. 1947. *Capitalism, Socialism and Democracy*. New York: Harper and Brothers.
- Shaxson, Nicholas, and John Christensen. 2013. "The Finance Curse. How Oversized Financial Centres Attack Democracy and Corrupt Economies." Chesham, UK: Tax Justice Network.
- Snyder, Richard. 2001. Scaling Down: The Subnational Comparative Method. *Studies in Comparative International Development* 36 (1): 93-110.
- Stokes, Susan, Thad Dunning, Marcelo Nazareno and Valeria Brusco. 2013. *Brokers, Voters, and Clientelism*. Cambridge: Cambridge University Press.
- Svaleryd, Helena and Jonas Vlachos. 2009. "Political rents in a non-corrupt democracy". *Journal of Public Economics* 93 (2009):355-372.
- Swedish Competition Authority. 2018. *Konkurrensverkets upphandlingstillsyn 2017*. Rapport 2018:2. Stockholm: the Swedish Competition Authority.

- Statistics Sweden. 2014. "Offentlig ekonomi 2014." April 2014.
http://www.scb.se/Statistik/_Publikationer/OE0903_2014A01_BR_OE06BR1401.pdf
 (accessed May 18, 2017).
- Statistics Sweden. 2017a. "Revision, hur revisionens ordförande utses efter kommun. Mandatperiod 2002-2006 - 2014-2018."
http://www.statistikdatabasen.scb.se/pxweb/sv/ssd/START__ME__ME0002__ME0002A/ME0002KnP07/?rxid=a809cdc7-51ac-4ff7-956b-046ec727c328 (accessed April 10, 2017).
- Statistics Sweden. 2017b. "Educational attainment of the population."
<http://www.scb.se/en/finding-statistics/statistics-by-subject-area/education-and-research/education-of-the-population/educational-attainment-of-the-population/> (accessed May 26, 2017).
- Statistics Sweden. 2017c. "Municipalities cost by region and account record. Year 2011-2016."
http://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__OE__OE0107__OE0107A/VerksKostn/?rxid=cf1795c9-c357-4f58-bacc-7b9c37110dba (accessed Aug 17, 2017)
- Swedish Association of Local Authorities and Regions. 2014. "Audit and Accountability in Local Government in Sweden." January 22, 2014.
http://skl.se/download/18.59311cdd145ac7ef71cd2666/1400766421399/Audit_and_accountability_local_government_Sweden_2014_SALAR.pdf (accessed May 15, 2017).
- Swedish Competition Agency. 2015. "Siffror och fakta om offentlig upphandling: Statistik om upphandlingar som genomförts under 2014." Rapport 2015:9.
- Tavits, Margit. 2007. "Clarity of Responsibility and Corruption." *American Journal of Political Science* 51(1): 218–229.
- The Swedish Municipal Act 2017: 725.

- Ting, Michael, James Snyder, Shigeo Hirano and Olle Folke. 2012. "Elections and reform: The adoption of civil service systems in the US states." *Journal of Theoretical Politics* 25(3): 363-387.
- TS Mediefakta. n.d. "Medierevision Print." <http://ts.se/produkter-tjaenster/medierevision-print> (accessed May 27, 2017).
- Weber, Max. [1921]1978. *Economy and Society*. Berkeley: University of California Press.
- Wooldridge, Jeffrey M. 2002. *Econometric Analysis of Cross Section and Panel Data*. Cambridge: MIT Press.
- Xezonakis, Georgios, Spyros Kosmidis, and Stefan Dahlberg. 2016. "Can electors combat corruption? Institutional arrangements and citizen behavior". *European Journal of Political Research* 55: 160-17

Political competition and public procurement outcomes:

Online Appendix

Table A1. Swedish municipalities and one-party rule

Municipality		Municipality		Municipality	
Ale	<i>Turnover</i>	Essunga	<i>Shift 2011</i>	Hylte	<i>Turnover</i>
Alingsås	<i>Turnover</i>	Fagersta	<i>Turnover</i>	Järfälla	<i>Turnover</i>
Ålmhult	<i>Turnover</i>	Falkenberg	<i>Turnover</i>	Jokkmokk	<i>Turnover</i>
Ålvdalen	<i>Turnover</i>	Falköping	<i>Turnover</i>	Jönköping	<i>Turnover</i>
Alvesta	<i>Turnover</i>	Falun	<i>Turnover</i>	Kalix	<i>Turnover</i>
Älvkarleby	<i>One-party rule</i>	Färgelanda	<i>Turnover</i>	Kalmar	<i>Turnover</i>
Älvsbyn	<i>One-party rule</i>	Filipstad	<i>One-party rule</i>	Karlsborg	<i>Turnover</i>
Åmål	<i>Turnover</i>	Finspång	<i>Turnover</i>	Karlshamn	<i>One-party rule</i>
Aneby	<i>Turnover</i>	Flen	<i>Turnover</i>	Karlskoga	<i>One-party rule</i>
Ånge	<i>One-party rule</i>	Forshaga	<i>Turnover</i>	Karlskrona	<i>Turnover</i>
Ängelholm	<i>Turnover</i>	Gagnef	<i>Turnover</i>	Karlstad	<i>Turnover</i>
Arboga	<i>One-party rule</i>	Gällivare	<i>Shift 2015</i>	Katrineholm	<i>One-party rule</i>
Åre	<i>Turnover</i>	Gävle	<i>One-party rule</i>	Kävlinge	<i>Turnover</i>
Årjäng	<i>Shift 2014</i>	Gislaved	<i>Turnover</i>	Kil	<i>Turnover</i>
Arjeplog	<i>Turnover</i>	Gnesta	<i>Turnover</i>	Kinda	<i>Turnover</i>
Arvidsjaur	<i>One-party rule</i>	Gnosjö	<i>Turnover</i>	Kiruna	<i>Turnover</i>
Arvika	<i>Turnover</i>	Göteborg	<i>Turnover</i>	Klippan	<i>Turnover</i>
Åsele	<i>Turnover</i>	Götene	<i>Turnover</i>	Knivsta	<i>Turnover</i>
Askersund	<i>Turnover</i>	Gotland	<i>Turnover</i>	Köping	<i>One-party rule</i>
Åstorp	<i>Turnover</i>	Grästorp	<i>Turnover</i>	Kramfors	<i>One-party rule</i>
Åtvidaberg	<i>Turnover</i>	Grums	<i>One-party rule</i>	Kristianstad	<i>Turnover</i>
Avesta	<i>Turnover</i>	Gullspång	<i>Turnover</i>	Kristinehamn	<i>Turnover</i>
Båstad	<i>Turnover</i>	Habo	<i>Turnover</i>	Krokom	<i>Turnover</i>
Bengtstors	<i>Turnover</i>	Håbo	<i>Turnover</i>	Kumla	<i>One-party rule</i>
Berg	<i>Turnover</i>	Hagfors	<i>Turnover</i>	Kungalv	<i>Turnover</i>
Bjurholm	<i>Turnover</i>	Hällefors	<i>One-party rule</i>	Kungsbacka	<i>Turnover</i>
Bjuv	<i>Turnover</i>	Hallsberg	<i>One-party rule</i>	Kungsör	<i>Turnover</i>
Boden	<i>Turnover</i>	Hallstahammar	<i>One-party rule</i>	Laholm	<i>Turnover</i>
Bollebygd	<i>Turnover</i>	Halmstad	<i>Turnover</i>	Landskrona	<i>Turnover</i>
Bollnäs	<i>Turnover</i>	Hammarö	<i>Shift 2011</i>	Laxå	<i>Shift 2015</i>
Borås	<i>Turnover</i>	Haninge	<i>Turnover</i>	Lekeberg	<i>Turnover</i>
Borgholm	<i>Turnover</i>	Haparanda	<i>One-party rule</i>	Leksand	<i>One-party rule</i>
Borlänge	<i>One-party rule</i>	Härjedalen	<i>One-party rule</i>	Lerum	<i>Turnover</i>
Botkyrka	<i>Turnover</i>	Härnösand	<i>Turnover</i>	Lessebo	<i>One-party rule</i>
Boxholm	<i>One-party rule</i>	Härryda	<i>Turnover</i>	Lidingö	<i>One-party rule</i>
Bräcke	<i>One-party rule</i>	Hässleholm	<i>Turnover</i>	Lidköping	<i>Turnover</i>
Bromölla	<i>One-party rule</i>	Heby	<i>Turnover</i>	Lilla Edet	<i>Turnover</i>
Burlöv	<i>One-party rule</i>	Hedemora	<i>Turnover</i>	Lindesberg	<i>Turnover</i>
Dals-Ed	<i>One-party rule</i>	Helsingborg	<i>Turnover</i>	Linköping	<i>Turnover</i>
Danderyd	<i>One-party rule</i>	Herrljunga	<i>Shift 2014</i>	Ljungby	<i>Turnover</i>
Degerfors	<i>Turnover</i>	Hjo	<i>Turnover</i>	Ljusdal	<i>Turnover</i>
Dorotea	<i>Turnover</i>	Hofors	<i>One-party rule</i>	Ljusnarsberg	<i>One-party rule</i>
Eda	<i>Turnover</i>	Höganäs	<i>Turnover</i>	Lomma	<i>Turnover</i>
Ekerö	<i>Turnover</i>	Högsby	<i>Turnover</i>	Ludvika	<i>One-party rule</i>
Eksjö	<i>Turnover</i>	Höör	<i>Turnover</i>	Luleå	<i>One-party rule</i>
Emmaboda	<i>Turnover</i>	Hörby	<i>Turnover</i>	Lund	<i>Turnover</i>
Enköping	<i>Turnover</i>	Huddinge	<i>Turnover</i>	Lycksele	<i>One-party rule</i>
Eskilstuna	<i>One-party rule</i>	Hudiksvall	<i>Turnover</i>	Lysekil	<i>Turnover</i>
Eslöv	<i>Turnover</i>	Hultsfred	<i>Turnover</i>	Malå	<i>Turnover</i>

(continued on next page)

(Table A1, continued)

Municipality		Municipality		Municipality	
Malmö	Turnover	Partille	Turnover	Tibro	Shift 2015
Malung-Sälen	Turnover	Perstorp	Turnover	Tidaholm	Turnover
Mariestad	Turnover	Piteå	One-party rule	Tierp	One-party rule
Mark	Turnover	Ragunda	One-party rule	Timrå	Turnover
Markaryd	Turnover	Rättvik	Turnover	Tingsryd	Turnover
Mellerud	Shift 2015	Robertsfors	Turnover	Tjörn	Turnover
Mjölby	Turnover	Ronneby	Shift 2011	Tomelilla	Turnover
Möndal	Turnover	Säffle	One-party rule	Töreboda	Turnover
Mönsterås	Turnover	Sala	Turnover	Torsås	Turnover
Mora	Turnover	Salem	One-party rule	Torsby	Turnover
Mörbylånga	Turnover	Sandviken	One-party rule	Tranås	Turnover
Motala	Turnover	Säter	Turnover	Tranemo	One-party rule
Mullsjö	Turnover	Sävsjö	Turnover	Trelleborg	Turnover
Munkedal	Turnover	Sigtuna	Turnover	Trollhättan	One-party rule
Munkfors	One-party rule	Simrishamn	Turnover	Trosa	Turnover
Nacka	One-party rule	Sjöbo	Turnover	Tyresö	Turnover
Nässjö	Turnover	Skara	Turnover	Uddevalla	Turnover
Nora	Turnover	Skellefteå	One-party rule	Ulricehamn	Turnover
Norberg	Turnover	Skinnskatteberg	Turnover	Umeå	Turnover
Nordanstig	Turnover	Skövde	Turnover	Upplands Väsby	Turnover
Nordmaling	Turnover	Skurup	Turnover	Upplands-Bro	Turnover
Norrköping	Turnover	Smedjebacken	One-party rule	Uppsala	Turnover
Norrälje	Turnover	Söderhamn	One-party rule	Uppvidinge	Turnover
Norsjö	Turnover	Söderköping	Turnover	Vadstena	Turnover
Nybro	Turnover	Södertälje	Turnover	Vaggeryd	Turnover
Nyköping	Turnover	Sollefteå	One-party rule	Valdemarsvik	Turnover
Nykvarn	Turnover	Sollentuna	Turnover	Vallentuna	Turnover
Nynäshamn	One-party rule	Solna	Turnover	Vänersborg	Turnover
Ockelbo	One-party rule	Sölvesborg	Turnover	Vännäs	Turnover
Öckerö	Turnover	Sorsele	Turnover	Vansbro	Turnover
Ödeshög	Turnover	Sotenäs	Turnover	Vara	Turnover
Olofström	One-party rule	Staffanstorp	Turnover	Varberg	Turnover
Örebro	Turnover	Stenungsund	Turnover	Värgårda	Shift 2011
Örkelljunga	Turnover	Stockholm	Turnover	Värmdö	Turnover
Örnsköldsvik	One-party rule	Storfors	One-party rule	Värnamo	One-party rule
Orsa	Turnover	Storuman	Turnover	Västerås	Turnover
Orust	Turnover	Strängnäs	Turnover	Västervik	Turnover
Osby	Turnover	Strömstad	Turnover	Vaxholm	Turnover
Oskarshamn	One-party rule	Strömsund	Turnover	Växjö	Turnover
Österåker	Turnover	Sundbyberg	Turnover	Vellinge	Turnover
Östersund	Turnover	Sundsvall	Shift 2011	Vetlanda	Shift 2011
Östhammar	Turnover	Sunne	Shift 2015	Vilhelmina	Turnover
Östra Göinge	Shift 2011	Surahammar	One-party rule	Vimmerby	Shift 2011
Ovanåker	Turnover	Svalöv	Turnover	Vindeln	Turnover
Överkalix	Shift 2015	Svedala	Turnover	Vingåker	Turnover
Övertorneå	Turnover	Svenljunga	Shift 2015	Ydre	One-party rule
Oxelösund	One-party rule	Täby	Turnover	Ystad	Turnover
Pajala	Turnover	Tanum	Turnover		

Note: Data from Dagens Samhälle #38 (2013), complemented by authors' own checks for shifts before and after 2013.

Table A2. Descriptive statistics

	Cross-sectional sample (2011/14)					Panel sample (2009-15)				
	N	mean	sd	min	max	N	mean	sd	min	max
Single bidding ratio	275	12.21	7.74	0.00	41.67	1901	12.51	14.88	0	100
One-party rule	275	0.23	0.42	0	1	1901	0.23	0.42	0	1
New ruling party						1901	0.29	0.45	0	1
Reelected once						1901	0.18	0.39	0	1
Reelected twice or more						1901	0.53	0.50	0	1
<i>Population</i>										
<5,000	275	0.04	0.20	0	1	1901	0.05	0.21	0	1
5-10,000	275	0.19	0.39	0	1	1901	0.19	0.39	0	1
10-15,000	275	0.22	0.41	0	1	1901	0.22	0.41	0	1
15-30,000	275	0.25	0.44	0	1	1901	0.25	0.43	0	1
30-250,000	275	0.28	0.45	0	1	1901	0.29	0.45	0	1
>250,000	275	0.01	0.10	0	1	1901	0.01	0.10	0	1
Area (log)	275	6.49	1.27	2.16	9.87	1901	6.49	1.26	2.16	9.87
Median income	275	226.31	22.73	180.30	303.55	1901	223.94	24.67	168.10	324.10
<i>Mayoral party</i>										
Social Democrats	275	0.47	0.50	0	1	1901	0.48	0.50	0	1
Moderates	275	0.34	0.48	0	1	1901	0.31	0.46	0	1
Center Party	275	0.15	0.36	0	1	1901	0.15	0.36	0	1
Christian Democrats	275	0.01	0.12	0	1	1901	0.02	0.12	0	1
Liberals	275	0.02	0.13	0	1	1901	0.02	0.13	0	1
Left Party	275	0.01	0.09	0	1	1901	0.01	0.09	0	1
Other, local party	275	0.00	0.06	0	1	1901	0.01	0.10	0	1
<i>County</i>										
Stockholm	275	0.09	0.29	0	1	1901	0.09	0.29	0	1
Uppsala	275	0.03	0.16	0	1	1901	0.03	0.16	0	1
Södermanland	275	0.03	0.17	0	1	1901	0.03	0.17	0	1
Östergötland	275	0.04	0.20	0	1	1901	0.04	0.20	0	1
Jönköping	275	0.05	0.21	0	1	1901	0.05	0.21	0	1
Kronoberg	275	0.03	0.17	0	1	1901	0.03	0.16	0	1
Kalmar	275	0.04	0.20	0	1	1901	0.04	0.20	0	1
Gotland	275	0.00	0.06	0	1	1901	0.00	0.06	0	1
Blekinge	275	0.02	0.13	0	1	1901	0.02	0.13	0	1
Skåne	275	0.12	0.33	0	1	1901	0.12	0.33	0	1
Halland	275	0.02	0.15	0	1	1901	0.02	0.15	0	1
Västra Götaland	275	0.16	0.37	0	1	1901	0.17	0.37	0	1
Värmland	275	0.06	0.23	0	1	1901	0.06	0.23	0	1
Örebro	275	0.04	0.20	0	1	1901	0.04	0.20	0	1
Västmanland	275	0.03	0.16	0	1	1901	0.03	0.16	0	1
Dalarna	275	0.05	0.23	0	1	1901	0.05	0.22	0	1
Gävleborg	275	0.03	0.16	0	1	1901	0.03	0.16	0	1
Västernorrland	275	0.03	0.16	0	1	1901	0.03	0.16	0	1
Jämtland	275	0.03	0.16	0	1	1901	0.03	0.16	0	1
Västerbotten	275	0.05	0.23	0	1	1901	0.05	0.22	0	1
Norrbotten	275	0.05	0.22	0	1	1901	0.05	0.22	0	1
Discounted number of bids	275	0.21	0.08	0.03	0.49	1901	0.22	0.14	0.01	1
Voteshare, ruling party						1899	34.78	10.63	6.90	67.40
No single bidding						1901	0.29	0.45	0	1
Media influence	275	4.60	0.87	1.93	6.71					
Local press coverage	275	0.56	0.19	0.04	0.96					
Bureaucratic human capital	275	45.26	6.99	31.75	77.00					
Local winner ratio	275	11.63	9.78	0.00	50.00					
Audit chair from majority	275	0.19	0.40	0	1					
Higher education (% of population)	275	0.11	0.04	0.05	0.32					
New ruling party	275	0.25	0.43	0	1					
Reelected once	275	0.23	0.42	0	1					
Reelected twice	275	0.08	0.27	0	1					
Reelected thrice or more	275	0.22	0.42	0	1					

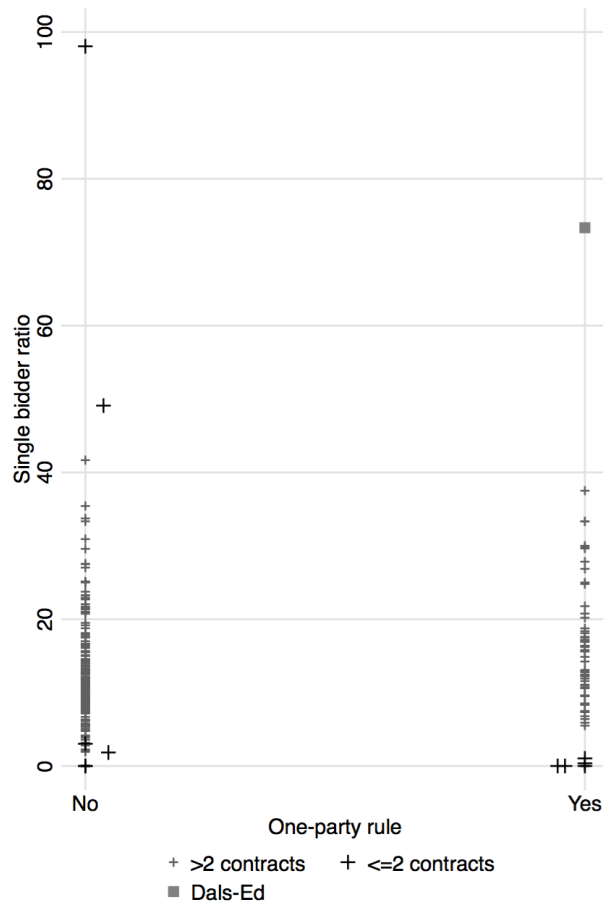


Figure A1. Single bidding ratio and one-party rule, 2011-14. Outlier analysis

Note: Data averaged for the 2011-14 term period. Markers for ≤ 2 contract municipalities have been jittered for increased legibility. Including all municipalities garners a weakly significant ($p=.08$) positive correlation with one-party rule estimated bivariately (positive coefficient, $p=.2$ when the full battery of controls are introduced).

Table A3. Single bidding ratio and one-party rule, contract-level propensity score matching results.

	Raw comparison	Propensity score matching
One-party rule	13.294	13.286
Turnover	11.509	12.035
<i>Difference</i>	-1.785***	-1.251*
95% confidence interval: lower bound	-1.054	-0.273
95% confidence interval: upper bound	-2.516	-2.229
N	56,303	17,680

Note. Propensity score matching using logistic model including common pool support sample only (2 treated contracts excluded due to lack of support), without replacement (psmatch2 package in stata 14.0). Contract level controls included: Contract value, product group (2 digit CPV codes), whether the contract is below or above EU reporting thresholds, the number of contracts awarded per year, and type of municipal buyer (municipal administration or municipal company). *** p<0.001, ** p<0.01, * p<0.05.

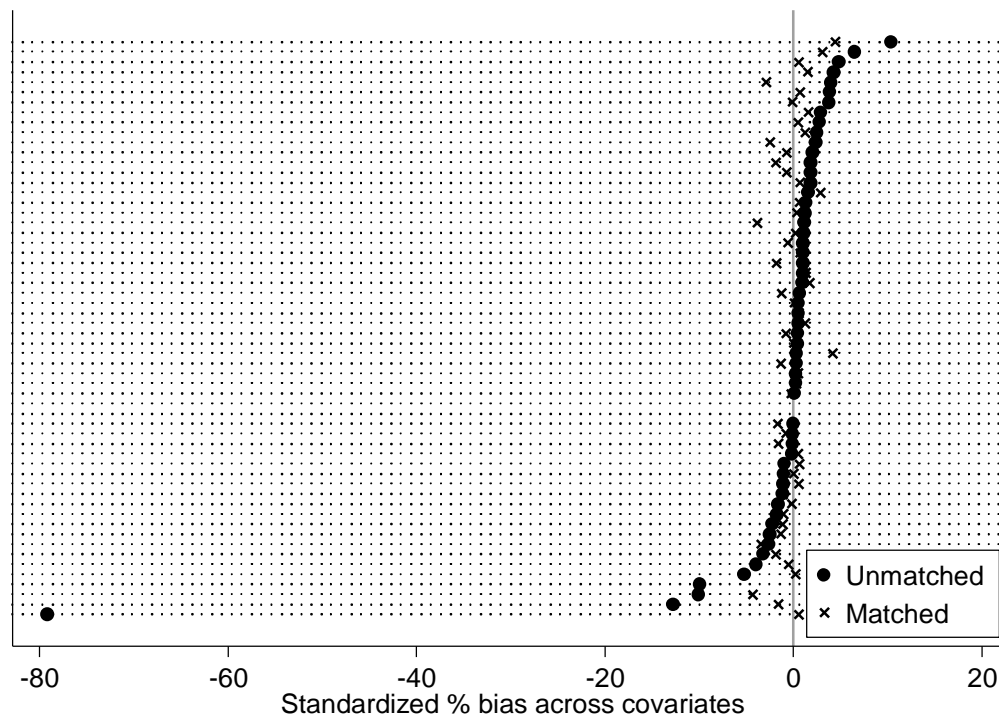


Figure A2. Single bidding ratio and one-party rule, contract-level propensity score matching, comparison of unmatched and matched samples' bias on the covariate level.

Table A4. Single bidding ratio and one-party rule, contract-level propensity score matching, comparison of unmatched and matched samples' overall bias.

Sample	Ps R2	LR chi2	p>chi2	MeanBias	MedBias	B	R	% Var
Unmatched	0.11	5395.24	0	3.8	1.4	81.2*	0.02*	100
Matched	0.002	60.19	0.327	1.3	0.9	11.7	1.01	0

* if $B > 25\%$, R outside $[0.5; 2]$

Table A5. Single bidding ratio and new ruling party, contract-level propensity score matching results.

	Raw comparison	Propensity score matching
Reelected ruling party (2+ reelections)	12.057	12.576
New ruling party	11.645	11.646
<i>difference</i>	-0.412	-0.930*
95% confidence interval: lower bound	-1.080	-1.697
95% confidence interval: upper bound	0.256	-0.163
N	44,014	27,706

Note. Propensity score matching using logistic model including common pool support sample only (no treated contract excluded due to lack of support), without replacement (psmatch2 package in stata 14.0). Contract level controls included: Contract value, product group (2 digit CPV codes), whether the contract is below or above EU reporting thresholds, the number of contracts awarded per year, and type of municipal buyer (municipal administration or municipal company). *** p<0.001, ** p<0.01, * p<0.05.

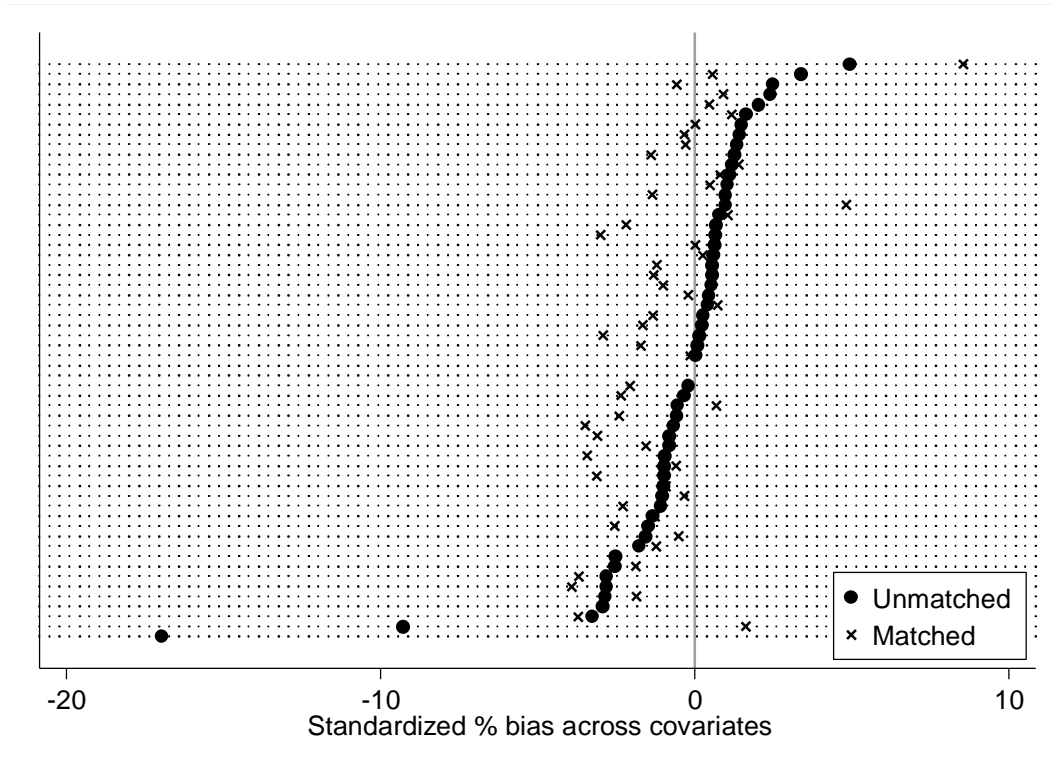


Figure A3. Single bidding ratio and new ruling party, contract-level propensity score matching, comparison of unmatched and matched samples' bias on the covariate level

Table A6. Single bidding ratio and new ruling party, contract-level propensity score matching, comparison of unmatched and matched samples' overall bias

Sample	Ps R2	LR chi2	p>chi2	MeanBias	MedBias	B	R	% Var
Unmatched	0.007	355.33	0	1.9	1.2	20.1	0.74	100
Matched	0.008	309.13	0	2.3	1.9	21.2	1.08	100

* if B>25%, R outside [0.5; 2]

Table A7 Single bidding ratio and new ruling party, contract-level propensity score matching results.

	Raw comparison	Propensity score matching
Reelected ruling party (1 reelection)	11.128	11.128
New ruling party	11.645	10.720
<i>difference</i>	0.517	-0.408
95% confidence interval: lower bound	-0.266	-1.209
95% confidence interval: upper bound	1.300	0.393
N	51,117	23,244

Note. Propensity score matching using logistic model including common pool support sample only (no treated contract excluded due to lack of support), without replacement (psmatch2 package in stata 14.0). Contract level controls included: Contract value, product group (2 digit CPV codes), whether the contract is below or above EU reporting thresholds, the number of contracts awarded per year, and type of municipal buyer (municipal administration or municipal company). *** p<0.001, ** p<0.01, * p<0.05.

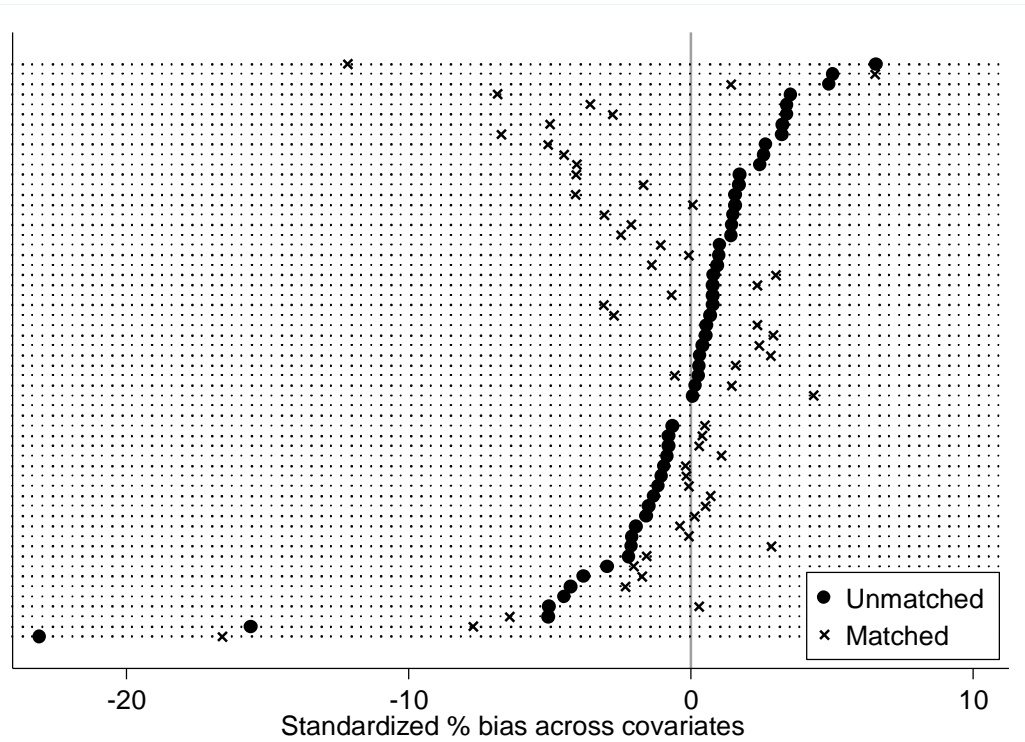


Figure A4. Single bidding ratio and new ruling party, contract-level propensity score matching, comparison of unmatched and matched samples' bias on the covariate level

Table A8. Single bidding ratio and new ruling party, contract-level propensity score matching, comparison of unmatched and matched samples' overall bias

Sample	Ps R2	LR chi2	p>chi2	MeanBias	MedBias	B	R	% Var
Unmatched	0.015	539.2	0	2.6	1.5	29.3*	0.76	100
Matched	0.02	645.23	0	3	2.3	33.2*	0.56	100

* if B>25%, R outside [0.5; 2]

Table A9. Single bidding ratio and One-party rule, panel sample.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Between estimator							Pooled OLS						
One-party rule	3.43*** (1.18)	2.69** (1.14)	3.27*** (1.17)	3.06*** (1.16)	2.50* (1.30)	3.09** (1.24)	2.47* (1.30)	3.25*** (1.03)	2.68*** (0.96)	3.03*** (1.02)	2.83*** (0.98)	2.44** (1.09)	2.97*** (1.07)	2.59*** (0.95)
Population														
5-10,000		-7.20*** (2.38)					-4.82* (2.53)		-9.11*** (3.46)					-6.40* (3.29)
10-15,000		-10.08*** (2.36)					-7.01** (2.76)		-10.99*** (3.25)					-7.03** (3.11)
15-30,000		-8.67*** (2.31)					-4.73* (2.76)		-10.37*** (3.17)					-5.73* (2.99)
30-250,000		-11.19*** (2.29)					-7.85*** (2.87)		-12.48*** (3.12)					-7.69** (2.98)
>250,000		-11.63** (5.05)					-9.24* (5.29)		-12.93*** (3.15)					-8.80*** (3.17)
Area (log)			1.03*** (0.39)				0.14 (0.68)			1.40*** (0.35)				0.33 (0.58)
Median income				-0.08*** (0.02)			-0.09** (0.04)				-0.09*** (0.02)			-0.08*** (0.02)
Constant	11.16 (8.58)	13.24 (8.47)	3.70 (8.95)	26.01*** (9.29)	10.57 (8.64)	10.36 (8.69)	31.30** (13.02)	9.07*** (1.11)	19.61*** (3.23)	0.02 (2.44)	27.59*** (4.47)	9.69*** (1.23)	6.63*** (1.21)	32.77*** (8.24)
Observations	1,901	1,901	1,901	1,901	1,901	1,901	1,901	1,901	1,901	1,901	1,901	1,901	1,901	1,901
R-squared	0.27	0.34	0.29	0.30	0.28	0.37	0.44	0.02	0.05	0.03	0.04	0.03	0.06	0.08
County FE	NO	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Party FE	NO	NO	NO	NO	YES	NO	YES	NO	NO	NO	NO	YES	NO	YES
No. municipalities	288	288	288	288	288	288	288	288	288	288	288	288	288	288

Dependent variable: Single bidding ratio. Standard errors in parentheses (clustered by municipality in POLS estimations). *** p<0.01 ** p<0.05 * p<0.1

Table A10. Single bidding ratio and Stability, cross-sectional sample.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Reelected once	-0.73 (1.24)	0.22 (1.28)	0.16 (1.26)	0.06 (1.26)	-0.43 (1.33)	0.24 (1.40)	0.76 (1.50)
Reelected twice	3.52* (1.98)	3.00 (2.07)	3.84** (1.93)	4.04** (1.91)	4.31** (2.00)	3.26* (1.97)	4.34** (2.14)
Reelected thrice or more	0.59 (1.33)	1.43 (1.32)	1.54 (1.36)	1.33 (1.34)	0.73 (1.33)	1.54 (1.46)	2.52* (1.43)
One-party rule	3.59** (1.44)	3.67** (1.42)	3.99*** (1.42)	3.76*** (1.43)	3.28** (1.46)	3.85*** (1.36)	4.47*** (1.40)
Population							
5-10,000		-6.74* (3.77)					-3.76 (3.80)
10-15,000		-8.22** (3.67)					-3.98 (3.86)
15-30,000		-6.89* (3.61)					-1.90 (3.77)
30-250,000		-9.13** (3.57)					-4.58 (3.70)
>250,000		-9.31** (3.75)					-5.35 (3.93)
Area (log)			1.21*** (0.38)				0.14 (0.67)
Median income				-0.07*** (0.02)			-0.09*** (0.03)
Constant	11.16*** (0.94)	18.30*** (3.50)	2.77 (2.81)	26.10*** (4.89)	11.55*** (1.02)	9.08*** (1.45)	34.48*** (10.81)
Observations	275	275	275	275	275	275	275
R-squared	0.05	0.11	0.09	0.09	0.07	0.16	0.23
County FE	NO	NO	NO	NO	NO	YES	YES
Party FE	NO	NO	NO	NO	YES	NO	YES

Dependent variable: Single bidding ratio. Data averaged for the 2011-14 term period. Robust standard errors in parentheses; *** p<0.01 ** p<0.05 * p<0.1. Stability reference category: New ruling party.

Table A11. Single bidding ratio and Ruling party vote share.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Fixed effects						Sys-GMM	Diff-GMM
Voteshare, ruling party	0.09 (0.08)	0.09 (0.08)	0.08 (0.08)	0.10 (0.08)	0.16* (0.08)	0.22** (0.10)	0.15 (0.20)	0.44** (0.22)
LDV						-0.16*** (0.04)	0.02 (0.04)	0.02 (0.04)
Area (log)							1.55 (2.24)	
Median income		0.07*** (0.03)			0.06 (0.14)	0.06 (0.15)	-0.09* (0.05)	-0.00 (0.26)
Population								
5-10,000							-5.23 (4.36)	
10-15,000							-5.22 (4.50)	
15-30,000							-3.22 (4.72)	
30-250,000							-4.80 (4.68)	
>250,000							-6.20 (5.42)	
Constant	9.32*** (2.87)	-6.42 (6.39)	10.29*** (3.06)	6.39** (2.81)	-7.78 (29.51)	-7.95 (32.78)	0.00 (0.00)	
Observations	1,899	1,899	1,899	1,899	1,899	1,574	1,574	1,283
R-squared	0.00	0.00	0.01	0.02	0.02	0.06		
Municipality FEs:	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Year FEs:	No	No	No	Yes	Yes	Yes	Yes	Yes
Party FEs:	No	No	Yes	No	Yes	Yes	Yes	Yes
County FEs:	No	No	No	No	No	No	Yes	Yes
No. municipalities	288	288	288	288	288	284	284	276
AR1 (p)							0.000	0.000
AR2 (p)							0.846	0.820
Hansen J statistic (p)							0.804	0.693
No. Instruments							81	43

Dependent variable: Single bidding ratio. Robust standard errors in parentheses; *** p<0.01 ** p<0.05 * p<0.1). GMM models use the twostep estimator with Windmeijer correction; Vote share, ruling party & LDV treated as predetermined and instrumented GMM-style (lag depth 1-4). Other covariates treated as exogenous and instrumented IV-style

Table A12. Odds of No single bidding and One-party rule.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Pooled logit						FE logit						
One-party rule	0.83 (0.16)	0.75 (0.14)	0.78 (0.15)	0.70* (0.13)	0.59*** (0.10)	0.80 (0.16)	0.66** (0.11)						
Reelected once								0.71 (0.16)	0.75 (0.17)	0.65* (0.15)	0.77 (0.18)	0.80 (0.20)	0.78 (0.21)
Reelected twice or more								0.63* (0.17)	0.60* (0.16)	0.51** (0.15)	0.60* (0.17)	0.58* (0.16)	0.54* (0.17)
Population													
5-10,000				2.16** (0.77)			1.90** (0.62)						
10-15,000				1.12 (0.39)			2.13** (0.70)						
15-30,000				0.55* (0.20)			2.17** (0.73)						
30-250,000				0.11*** (0.04)			3.30*** (1.47)						
Median income		0.98*** (0.00)					1.01 (0.00)		0.96*** (0.01)				0.97 (0.03)
Number of tenders					0.83*** (0.01)		0.81*** (0.02)					0.78*** (0.02)	0.79*** (0.02)
Number of tenders ²					1.00*** (0.00)		1.00*** (0.00)					1.00** (0.00)	1.00** (0.00)
Constant	0.43*** (0.04)	20.02*** (17.40)	0.44*** (0.06)	0.64 (0.21)	4.04*** (0.64)	0.97 (0.13)	0.90 (0.83)						
Observations	1,901	1,901	1,901	1,901	1,901	1,901	1,901	1,171	1,171	1,171	1,171	1,171	1,171
Municipal FE	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES
Year FE	NO	NO	NO	NO	NO	YES	YES	NO	NO	NO	YES	NO	YES
Party FE	NO	NO	YES	NO	NO	NO	YES	NO	NO	YES	NO	NO	YES
No. municipalities	288	288	288	288	288	288	288	175	175	175	175	175	175

Dependent variable: No single bidding during year. Odds ratios displayed. Standard errors in parentheses (clustered by municipality in pooled logit estimations); *** p<0.01 ** p<0.05 * p<0.1). FE logit models estimated using the xtlogit, fe command in STATA 14.2. Number of contracts and its squared term included to account for the mechanical decrease in likelihood of receiving no single bid as number of contracts increase.

Table A13. (Discounted) Number of bidders and Political entrenchment

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Cross-section OLS							Fixed Effects					Sys-GMM Diff-GMM		
One-party rule	0.04*** (0.01)	0.03*** (0.01)	0.04*** (0.01)	0.03*** (0.01)	0.03** (0.01)	0.03*** (0.01)	0.03*** (0.01)								
Reelected once								0.02* (0.01)	0.01 (0.01)	0.02** (0.01)	0.01 (0.01)	0.01* (0.01)	0.02 (0.01)	0.02* (0.01)	0.03** (0.01)
Reelected twice or more								0.02** (0.01)	0.02* (0.01)	0.03** (0.01)	0.02** (0.01)	0.02* (0.01)	0.02 (0.01)	0.03* (0.02)	0.05** (0.02)
Population															
5-10,000		-0.08** (0.03)						-0.05 (0.03)						-0.07 (0.04)	
10-15,000		-0.10*** (0.03)						-0.05 (0.03)						-0.07 (0.04)	
15-30,000		-0.09*** (0.03)						-0.03 (0.03)						-0.05 (0.04)	
30-250,000		-0.11*** (0.03)						-0.05* (0.03)						-0.07* (0.04)	
>250,000		-0.12*** (0.03)						-0.07* (0.03)						-0.11** (0.04)	
Area (log)			0.02*** (0.00)					0.00 (0.01)						0.02* (0.01)	
Median income				-0.00*** (0.00)			-0.00*** (0.00)		0.00*** (0.00)			0.00 (0.00)	0.00 (0.00)	-0.00*** (0.00)	-0.00 (0.00)
LDV													-0.00*** (0.00)	0.00 (0.00)	0.00 (0.00)
Constant	0.21*** (0.01)	0.30*** (0.03)	0.09*** (0.02)	0.42*** (0.05)	0.22*** (0.01)	0.18*** (0.01)	0.45*** (0.10)	0.20*** (0.01)	0.01 (0.05)	0.21*** (0.01)	0.17*** (0.01)	0.14 (0.26)	0.20 (0.30)	0.00 (0.00)	
Observations	275	275	275	275	275	275	275	1,901	1,901	1,901	1,901	1,901	1,576	1,576	1,286
R-squared	0.04	0.14	0.14	0.12	0.08	0.21	0.30	0.00	0.01	0.01	0.03	0.03	0.06		
Municipality FEs:								Yes	Yes	Yes	Yes	Yes	Yes	No	No
Year FEs:								No	No	No	Yes	Yes	Yes	Yes	Yes
Party FEs:	No	No	No	No	Yes	No	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes
County FEs:	No	No	No	No	No	Yes	Yes	No	No	No	No	No	No	Yes	Yes
No. municipalities								288	288	288	288	288	284	284	276
AR1 (p)														0	7.68e-10
AR2 (p)														0.669	0.719
Hansen J statistic (p)														0.677	0.745
No. Instruments														93	52

Dependent variable: Average number of bidders (discounted). Note that the discounting procedure ($1/[\text{number of bidders}^2]$) means that higher number of bidders generate lower scores, and vice versa. Data averaged for the 2011-14 term period in models with one-party rule. Robust standard errors in parentheses; *** p<0.01 ** p<0.05 * p<0.1). GMM models use the twostep estimator with Windmeijer correction; Vote share, ruling party & LDV treated as predetermined and instrumented GMM-style (lag depth 1-4). Other covariates treated as exogenous and instrumented IV-style.

Table A14. Single bidding ratio and Stability in small and large municipalities.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	<u>Small municipalities</u>								<u>Large municipalities</u>							
	Fixed effects				Sys-GMM		Diff-GMM		Fixed effects				Sys-GMM		Diff-GMM	
Reelected once	4.69*** (1.80)	4.69*** (1.80)	4.87*** (1.83)	4.87*** (1.80)	5.05*** (1.84)	6.14*** (2.30)	7.50*** (2.84)	8.36*** (3.14)	-0.29 (0.84)	-0.81 (0.83)	-0.03 (0.87)	-1.04 (0.88)	-1.07 (0.88)	-0.94 (1.06)	0.75 (1.00)	-0.15 (1.15)
Reelected twice or more	4.13** (1.78)	4.12** (1.78)	4.72** (2.12)	4.28** (1.80)	4.73** (2.17)	3.78 (2.59)	7.70** (3.36)	11.60** (4.84)	0.75 (1.27)	0.34 (1.17)	0.95 (1.37)	0.15 (1.14)	-0.08 (1.22)	-0.74 (1.50)	1.74 (1.41)	1.12 (2.37)
LDV						-0.18*** (0.04)	-0.02 (0.04)	-0.02 (0.05)						-0.12** (0.05)	0.16*** (0.05)	0.10 (0.06)
Area (log)							-0.75 (2.34)								2.68** (1.19)	
Median income		0.00 (0.05)			0.13 (0.27)	0.30 (0.30)	-0.02 (0.27)	-0.34 (0.48)		0.12*** (0.02)			-0.18** (0.09)	-0.23* (0.12)	-0.02 (0.02)	0.04 (0.15)
5-10,000							-5.09 (4.93)								0.00 (0.00)	
10-15,000							-8.63 (7.04)								0.00 (0.00)	
15-30,000							-9.73 (10.82)								7.00 (6.66)	
30-250,000							0.00 (0.00)								5.65 (6.67)	
>250,000							0.00 (0.00)								3.42 (7.12)	
Constant	10.76*** (1.10)	10.51 (11.61)	11.84*** (1.32)	9.54*** (2.17)	-14.74 (54.22)	-46.66 (61.59)	0.00 (0.00)		11.04*** (0.73)	-16.13*** (5.14)	12.01*** (0.81)	7.66*** (0.80)	46.72** (19.42)	62.55** (25.61)	0.00 (0.00)	
Observations	896	896	896	896	896	718	718	573	1,005	1,005	1,005	1,005	1,005	858	858	713
R-squared	0.01	0.01	0.02	0.02	0.03	0.08			0.00	0.03	0.01	0.07	0.08	0.05		
Municipality FEs:	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Year FEs:	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes
Party FEs:	No	No	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes
County FEs:	No	No	No	No	No	No	Yes	Yes	No	No	No	No	No	No	Yes	Yes
No. municipalities	143	143	143	143	143	139	139	131	145	145	145	145	145	145	145	145
AR1 (p)							0.000	0.000							0.000	0.000
AR2 (p)							0.496	0.662							0.115	0.187
Hansen J statistic (p)							0.535	0.502							0.832	0.834
No. Instruments							86	49							80	45

Dependent variable: Single bidding ratio. Sample split on median (minimum) population size (15,190.5). Robust standard errors in parentheses; *** p<0.01 ** p<0.05 * p<0.1). GMM models use the twostep estimator with Windmeijer correction; Vote share, ruling party & LDV treated as predetermined and instrumented GMM-style (lag depth 1-4). Other covariates treated as exogenous and instrumented IV-style

Table A15. Single bidding ratio and One-party rule, interacted by size.

	(1)	(2)	(3)	(4)	(5)	(6)
One-party rule	25.68*	28.31**	22.78	24.47*	33.44**	29.38**
	(13.81)	(13.75)	(13.85)	(13.98)	(14.06)	(14.53)
Population (log)	-0.95*	-0.69	-0.54	-1.00	-0.34	-0.18
	(0.55)	(0.54)	(0.52)	(0.63)	(0.52)	(0.50)
One-party rule * (log) Population	-2.32*	-2.60*	-2.04	-2.24	-3.13**	-2.69*
	(1.34)	(1.33)	(1.34)	(1.36)	(1.37)	(1.43)
Area (log)		1.10***				0.18
		(0.36)				(0.69)
Median income			-0.05**			-0.07**
			(0.02)			(0.04)
Constant	20.89***	11.16*	27.70***	21.93***	14.23**	29.59**
	(5.79)	(6.40)	(7.13)	(6.46)	(5.81)	(12.27)
Observations	275	275	275	275	275	275
R-squared	0.07	0.10	0.09	0.08	0.17	0.21
County FE	NO	NO	NO	NO	YES	NO
Party FE	NO	NO	NO	YES	NO	NO

Dependent variable: Single bidding. Robust standard errors in parentheses; *** p<0.01 ** p<0.05 * p<0.1

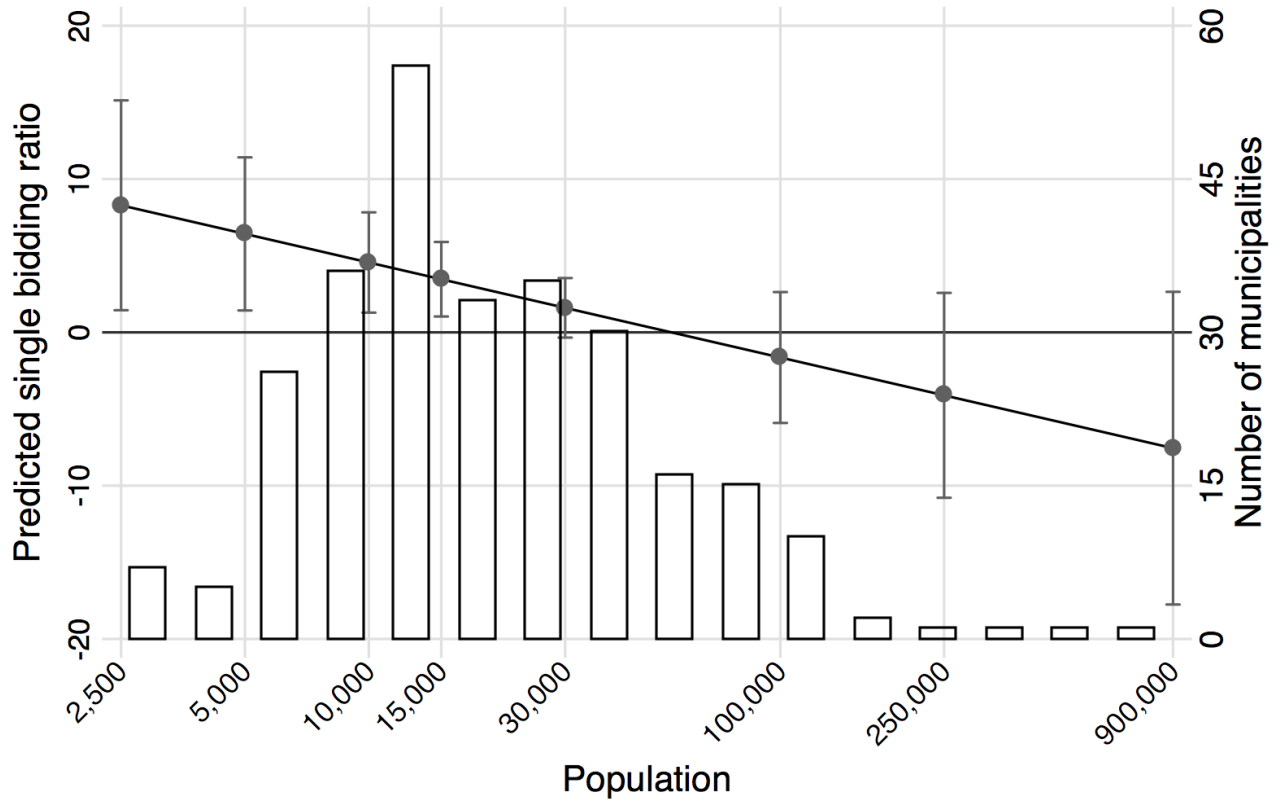


Figure A5. Single bidding ratio and One-party rule, interacted with population.

Note. Results derived from to table A15, column 6. Capped lines display 95% confidence intervals using robust standard errors. Values for controls are set at Ruling party=Social Democrats, Region=Västra Götaland, while (log)Area and Median income are set at their mean values.

Table A16. Single bidding ratio and One-party rule, by Party.

	(1)	(2)	(3)	(4)	(5)	(6)
One-party rule	2.46 (1.55)	2.35 (1.54)	2.67* (1.51)	2.49 (1.55)	2.49 (1.53)	2.59* (1.48)
Conservatives	-1.47 (1.06)	-0.63 (1.12)	-0.15 (1.08)	0.04 (1.28)	-0.50 (1.46)	1.10 (1.59)
Center party	-0.55 (1.77)	-0.02 (1.83)	-0.61 (1.77)	-0.80 (1.74)	-0.06 (1.69)	0.40 (1.79)
Other party	-1.86 (2.98)	-1.23 (3.13)	-0.51 (3.01)	-1.67 (2.94)	-0.16 (3.29)	0.63 (3.40)
One-party rule* Conservatives	-0.83 (4.09)	-0.21 (3.71)	1.46 (4.22)	2.58 (4.02)	-0.26 (4.26)	1.30 (3.63)
One-party rule* Center party	1.67 (2.68)	1.71 (2.65)	1.67 (2.68)	1.38 (2.54)	2.58 (2.81)	1.98 (2.62)
One-party rule* Other party	2.76 (3.27)	3.41 (3.49)	3.10 (3.28)	2.05 (3.26)	1.77 (3.28)	0.28 (3.57)
Population						
5-10,000		-7.10* (3.79)				-4.46 (3.69)
10-15,000		-8.56** (3.62)				-4.10 (3.77)
15-30,000		-7.22** (3.59)				-2.46 (3.63)
30-250,000		-9.24*** (3.55)				-4.69 (3.55)
>250,000		-9.43*** (3.45)				-5.24 (3.69)
Area (log)			1.21*** (0.43)			-0.07 (0.69)
Median income				-0.07*** (0.03)		-0.09** (0.03)
Constant	12.27*** (0.77)	19.66*** (3.33)	3.84 (2.94)	28.24*** (6.16)	10.69*** (1.38)	36.41*** (11.03)
Observations	275	275	275	275	275	275
R-squared	0.04	0.10	0.07	0.07	0.15	0.20
County FE	NO	NO	NO	NO	YES	YES

Dependent variable: Single bidding. Other ruling party include Liberals (5), Christian Democrats (4), Left Party (2), and local parties (1). Robust standard errors in parentheses; *** p<0.01 ** p<0.05 * p<0.1

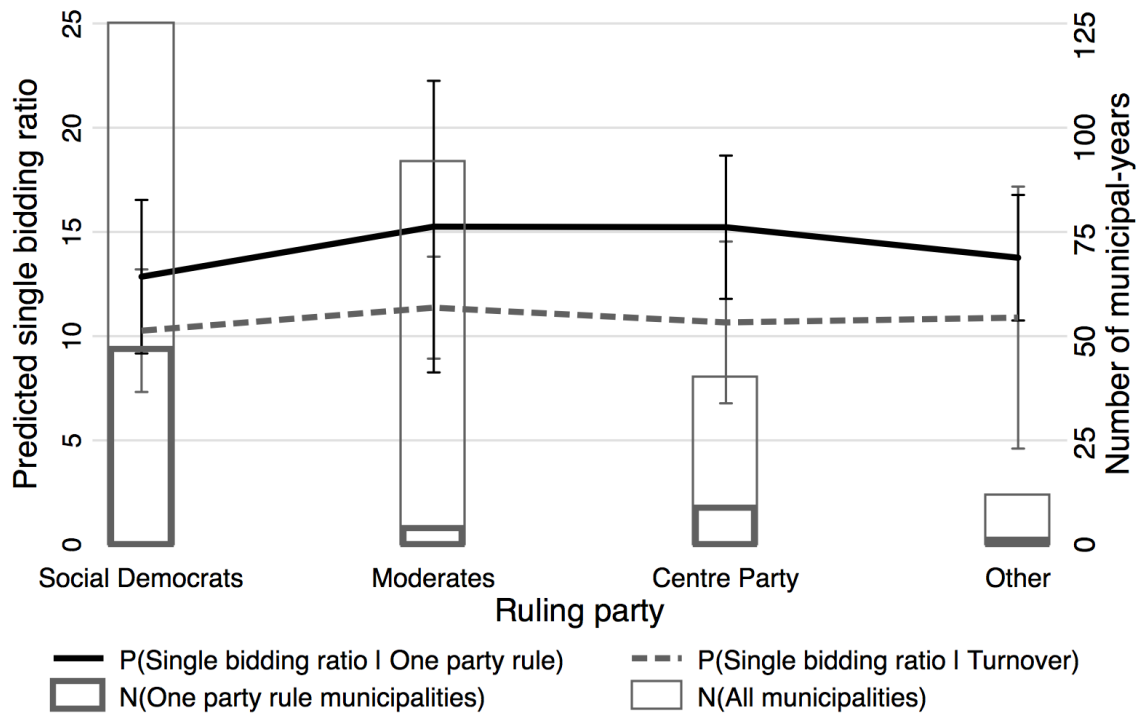


Figure A6. Single bidding ratio and One-party rule, across party ID

Note. Results derived from to table A16, column 6, with one-party rule interacted with party ID (“Other” includes Liberals, Christian Democrats, Left Party, and other parties). Capped lines display 95% confidence intervals using robust standard errors. Values for controls are set at Region=Västra Götaland, population=30-250,000, while (log)Area and Median income are set at their mean values.

Table A17. Single bidding ratio and Stability, interacted by Party ID.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Fixed effects					Sys-GMM	Diff-GMM
Reelected once	3.37 (2.11)	3.32 (2.11)	3.01 (2.09)	3.05 (2.10)	2.81 (2.38)	4.51* (2.59)	6.97** (3.43)
Reelected twice or more	0.91 (2.69)	1.01 (2.71)	0.79 (2.72)	0.83 (2.74)	-0.31 (2.87)	1.74 (1.76)	6.77 (4.88)
Conservatives	-2.58 (1.61)	-1.75 (1.70)	-1.50 (1.74)	-1.44 (1.72)	-0.08 (1.63)	-1.88 (1.54)	1.07 (2.03)
Center party	0.71 (3.02)	1.31 (3.10)	1.36 (3.10)	1.36 (3.10)	4.29 (3.80)	0.53 (4.59)	1.63 (5.34)
Other party	-4.59 (4.23)	-3.99 (4.22)	-4.25 (4.29)	-4.19 (4.29)	-2.03 (4.35)	11.60 (12.60)	0.34 (5.13)
Reelected once *Conservatives	-2.24 (2.43)	-2.74 (2.47)	-2.08 (2.53)	-2.17 (2.52)	-1.71 (2.90)	-2.00 (2.93)	-5.11 (3.65)
Reelected once *Center party	-2.36 (4.03)	-2.31 (4.07)	-1.90 (4.04)	-1.93 (4.05)	0.13 (5.86)	-5.60 (5.09)	-5.55 (5.49)
Reelected once *Other party	1.31 (4.02)	1.39 (3.98)	2.00 (4.14)	1.92 (4.15)	3.40 (4.39)	-4.98 (6.70)	7.83 (8.32)
Reelected twice or more *Conservatives	1.75 (3.11)	0.80 (3.18)	1.08 (3.20)	0.94 (3.23)	1.56 (3.55)	4.18* (2.23)	-3.87 (5.15)
Reelected twice or more *Center party	0.63 (4.36)	0.69 (4.33)	1.19 (4.33)	1.13 (4.36)	1.76 (4.79)	2.86 (4.99)	-0.99 (6.21)
Reelected twice or more *Other party	10.40** (5.25)	9.89* (5.39)	10.22* (5.55)	10.09* (5.60)	10.84* (5.83)	4.40 (10.26)	11.01 (14.51)
LDV					-0.17*** (0.04)	0.02 (0.04)	-0.02 (0.05)
Area (log)						1.09 (0.76)	
Median income		0.06** (0.03)		0.04 (0.14)	0.04 (0.15)	-0.07** (0.03)	0.11 (0.21)
		Population					
5-10,000						-2.19 (4.33)	
10-15,000						-2.32 (4.51)	
15-30,000						-0.80 (4.50)	
30-250,000						-3.03 (4.49)	
>250,000						-4.04 (5.02)	
Constant	12.14*** (1.18)	-1.96 (6.80)	9.38*** (1.81)	0.60 (28.69)	6.43 (32.88)	26.71*** (9.32)	
Observations	1,901	1,901	1,901	1,901	1,576	1,576	1,286
R-squared	0.01	0.01	0.02	0.02	0.05		
Municipality FEs:	Yes	Yes	Yes	Yes	Yes	No	No
Year FEs:	No	No	Yes	Yes	Yes	Yes	Yes
County FEs:	No	No	No	No	No	Yes	NO
No. municipalities	288	288	288	288	284	284	276
AR1 (p)						2.44e-09	5.07e-08
AR2 (p)						0.842	0.587
Hansen J statistic (p)						0.677	0.808
No. Instruments						193	130

Dependent variable: Single bidding ratio. Robust standard errors in parentheses; *** p<0.01 ** p<0.05 * p<0.1). GMM models use the twostep estimator with Windmeijer correction; Vote share, ruling party & LDV treated as predetermined and instrumented GMM-style (lag depth 1-4). Other covariates treated as exogenous and instrumented IV-style.

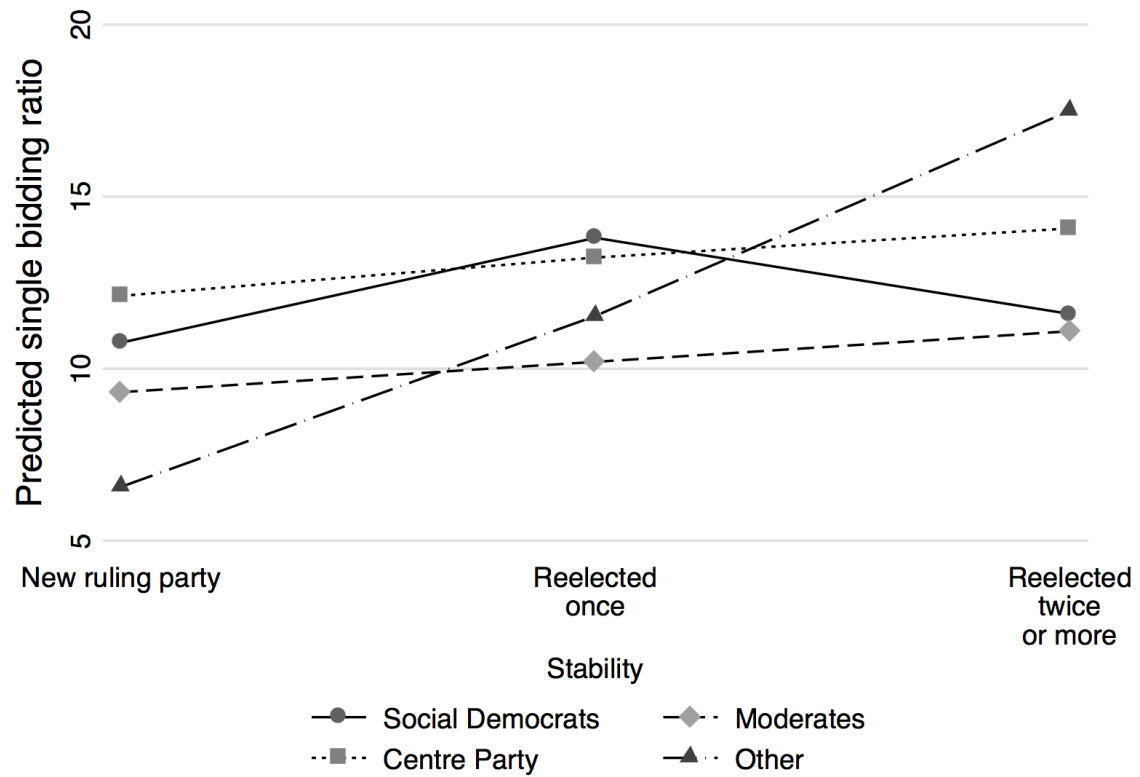


Figure A7. Single bidding ratio and Stability, across party ID

Note. Results derived from table A17, column 4, with stability interacted with party ID (“Other” includes Liberals, Christian Democrats, Left Party, and other parties). Values for controls are set at year=2012, while Median income is set at its mean value.

Table A18. Political entrenchment, Majority-minority conflict, and Single bidding ratio.

	(1)	(2)	(3)	(4)
	DV: Majority/opposition relations		DV: Single bidding ratio	
One-party rule	0.31 (0.20)	0.61** (0.24)		
Majority/opposition relations			0.37 (0.30)	0.60* (0.31)
Population				
5-10,000		-0.19 (0.53)		-4.27 (3.64)
10-15,000		-0.22 (0.55)		-4.48 (3.70)
15-30,000		-0.24 (0.55)		-2.61 (3.57)
30-250,000		-0.47 (0.56)		-4.81 (3.47)
>250,000		-0.85 (0.57)		-5.80 (3.62)
Area (log)		0.03 (0.13)		-0.17 (0.71)
Median income		0.01 (0.01)		-0.09** (0.04)
Constant	5.26*** (0.11)	2.64 (1.94)	10.25*** (1.64)	35.88*** (11.42)
Observations	275	275	275	275
R-squared	0.01	0.16	0.01	0.20
County FE	NO	YES	NO	YES
Party FE	NO	YES	NO	YES

Data averaged for the 2011-14 term period. Robust standard errors in parentheses; *** p<0.01 ** p<0.05 * p<0.1

Table A19. Political entrenchment, Audit control, and Single bidding ratio.

	(1)	(2)	(3)	(4)
	DV: Audit chair from majority		DV: Single bidding ratio	
One-party rule	2.08** (0.70)	2.55** (1.01)		
Audit chair from majority	.	.	1.34 (1.18)	1.28 (1.08)
Population				
5-10,000		0.54 (0.44)		-4.32 (3.66)
10-15,000		0.45 (0.38)		-4.06 (3.77)
15-30,000		0.50 (0.40)		-2.35 (3.64)
30-250,000		1.01 (0.84)		-4.61 (3.54)
>250,000		6.86 (9.82)		-6.37* (3.84)
Area (log)		0.99 (0.16)		-0.31 (0.69)
Median income		0.99 (0.01)		-0.08** (0.03)
Constant	0.20*** (0.04)	5.19 (14.12)	11.95*** (0.52)	38.07*** (11.01)
Observations	275	275	275	275
R-squared			0.00	0.19
Party FE	NO	YES	NO	YES
County FE	NO	NO	NO	YES
NUTS1 FE	NO	YES	NO	NO

Data averaged for the 2011-14 term period. Odds ratios displayed for models predicting Audit chair from majority (columns 1 & 2). Since a number of counties and mayoral parties perfectly predict Audit chair from majority, and are dropped from logit models, these have been substituted by NUTS1-region and the constrained mayoral party ID-variable used in table A16 & A17. Robust standard errors in parentheses; *** p<0.01 ** p<0.05 * p<0.1

Table A20. Political entrenchment, Media influence, and Single bidding ratio.

	(1)	(2)	(3)	(4)
	DV: Media influence		DV: Single bidding ratio	
One-party rule	-0.57*** (0.12)	-0.32** (0.14)		
Media influence			-1.20** (0.51)	-1.33** (0.60)
Population				
5-10,000		0.23 (0.34)		-4.19 (3.65)
10-15,000		0.35 (0.35)		-4.19 (3.74)
15-30,000		0.13 (0.35)		-2.76 (3.61)
30-250,000		0.41 (0.36)		-4.79 (3.52)
>250,000		0.64 (0.40)		-6.00* (3.63)
Area (log)		0.03 (0.07)		-0.11 (0.68)
Median income		-0.01* (0.00)		-0.08** (0.04)
Local press coverage		-0.33 (0.39)		-4.31 (4.16)
Constant	4.73*** (0.06)	5.45*** (0.93)	17.73*** (2.49)	44.45*** (12.06)
Observations	275	275	275	275
R-squared	0.08	0.29	0.02	0.21
County FE	NO	YES	NO	YES
Party FE	NO	YES	NO	YES

Data averaged for the 2011-14 term period. Robust standard errors in parentheses; *** p<0.01 ** p<0.05 * p<0.1

Table A21. Political entrenchment, Bureaucratic human capital, and Single bidding ratio.

	(1)	(2)	(3)	(4)
	DV: bureaucratic human capital		DV: Single bidding ratio	
One-party rule	-2.97*** (0.96)	-0.08 (0.55)		
Bureaucratic human capital			-0.34*** (0.07)	-0.31** (0.15)
Population				
5-10,000		2.91*** (0.97)		-3.49 (3.65)
10-15,000		3.89*** (1.07)		-3.42 (3.70)
15-30,000		4.67*** (1.05)		-1.36 (3.56)
30-250,000		7.59*** (1.24)		-1.98 (3.61)
>250,000		8.07*** (2.06)		-1.16 (4.01)
Area (log)		-0.71** (0.28)		-0.57 (0.71)
Median income		0.05*** (0.02)		-0.04 (0.04)
Higher education, population		62.94*** (10.62)		-1.19 (14.64)
Outsourcing		0.19*** (0.05)		-0.01 (0.07)
Constant	45.93*** (0.48)	21.11*** (5.70)	27.40*** (3.32)	44.16*** (11.76)
Observations	275	275	275	275
R-squared	0.03	0.81	0.09	0.21
County FE	NO	YES	NO	YES
Party FE	NO	YES	NO	YES

Data averaged for the 2011-14 term period. Robust standard errors in parentheses; *** p<0.01 ** p<0.05 * p<0.1

Table A22. Political entrenchment, Local winner ratio, and Single bidding ratio.

	(1)	(2)	(3)	(4)
	DV:		DV:	
	Local winner		Single bidding ratio	
One-party rule	1.50 (1.37)	0.42 (1.33)		
Local winner ratio			0.10** (0.05)	0.07 (0.07)
		Population		
5-10,000		-8.77** (3.93)		-3.46 (3.64)
10-15,000		-6.05 (4.04)		-4.59 (3.71)
15-30,000		-6.52 (4.04)		-2.22 (3.53)
30-250,000		-0.70 (4.19)		-4.84 (3.48)
>250,000		16.59*** (5.90)		-7.49* (4.02)
Area (log)		1.56** (0.74)		-0.03 (0.72)
Median income		-0.02 (0.04)		-0.09*** (0.03)
Constant	11.23*** (0.64)	6.69 (10.97)	11.15*** (0.74)	38.08*** (11.22)
Observations	264	264	264	264
R-squared	0.00	0.36	0.02	0.23
County FE	NO	YES	NO	YES
Party FE	NO	YES	NO	YES

Data averaged for the 2011-14 term period. Robust standard errors in parentheses; *** p<0.01 ** p<0.05 * p<0.1