UNIVERSITY OF
GOTHENBURG

PROCUREMENT AND COMPETITION IN SWEDISH MUNICIPALITIES

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WORKING PAPER SERIES 2017:5

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July 2017
ISSN 1653-8919

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ABSTRACT

This paper asks if low political competition is associated with manipulation of public procurement processes. Using unique Swedish municipal data from 2009 to 2015, it demonstrates that when one party dominates local politics, procurement quality decreases and corruption risks increase. Most striking is that the risk for getting only one bid on what is intended to be an open tender considerably increases with longstanding one-party-rule. Findings suggest that entrenched parties are able to exert favoritistic control over public procurement due to less well-functioning internal and external control mechanisms: bureaucratic human capital decreases, municipal audits are more prone to be controlled by the ruling majority, and politicians are less susceptible to media pressure. These results are particularly interesting from a comparative perspective since Sweden, being an old democracy with a meritocratic bureaucracy, low levels of corruption and clientelism is an unlikely case in which to find these tendencies.

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Introduction

The risk for power abuse is omnipresent, even in democracies.[1] Constitutions, laws, and other regulations are written with the perspective in mind that while the ruling elite must have enough power to do good, they cannot be left unguarded. It is for example a common theme for the Federalist Papers; 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.

Motives for the ruling elite to exceed the powers given to them are diverse. While the most obvious risk is that they will take advantage of their position to enrich themselves and their clique at the expense of the public good (North et al 2009; Rothstein 2011), this is not the only motive. The nature of democratic politics is such that politicians tend to be biased toward delivering goods and services to their constituencies. In young democracies with weak parties, distribution of public goods often takes the form of clientelism, but also in old democracies with stronger party-systems politicians sometimes use clientelistic linkage strategies, or enter into pork-barrel politics (Berry and Fowler 2015; Kitschelt and Singer 2016; Stokes et al 2013). Moreover, even elected leaders with the public good in mind might be tempted to bend rules, for example in order to increase efficiency. Rules that are intended to safeguard against corruption risks, and other abuse of public power, often slows down decision making and might even lead to non-ideal outcomes.

At least in democracies, these tendencies should diminish with increased elite competition over political power (Schumpeter 1947; for a related argument not only including 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 which creates policies that benefit large parts of the electorate, rather than just the elite and their immediate followers (Montinola and Jackman 2002; Gerring and Thacker 2004; Persson and Tabellini 2003; Rose-Ackerman 1978).

[1] This paper is a part of the research project "Out of Control or over Controlled? Incentives, Audits and New Public Management", and we gratefully acknowledge financial support from *Riksbankens Jubileumsfond* (the Swedish Foundation for Humanities and Social Sciences). In addition, the authors are also grateful for the Swedish Competition Authority (Konkurrensverket) and Visma Commerce AB for allowing the Swedish national public procurement database to be used for scientific research.

With these perspectives in mind, the public procurement process is an area where the political system is put to a critical test. Not only do public procurements involve huge sums of money today, amounting to 15 percent of worldwide GDP (Organization for Economic Cooperation and Development [OECD] 2011, 39), but these are also critical situations when political elites interact with business elites, while having the potential to use their positions to benefit their constituency, connected companies, or themselves. It is for example probable that a local firm should compete against outside companies in such cases. Even if the bid of an outside competitor is better, it would make perfect sense for both the local politician, and for their constituency, to accept some cost for favoring the local bidder, if that company contributes to the constituency in some other way, for example by offering local job opportunities. Moreover, politicians might be tempted to accept some kind of side payment for themselves, or their inner- or outer circle, in order to award a contract to a favored bidder, instead of the best bidder. Coviello and Gagliarducci (forthcoming) indeed demonstrate that Italian local politics show clear signs of such behavior, like Klašnja (2016) finds evidence for it in Romania, and Fazekas (2015) in the UK.

As these temptations are ubiquitous, most governance systems have devised legal and bureaucratic checks against them. In Europe, national and EU regulations of the common market aim to create a fair and open marketplace for government contracts. The EU Public Procurement Directives are devised 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 are supposed to secure compliance with rules of open and fair access to public resources. Where such systems work, public power is consequently not used to fulfill partisan, clientelistic, or corrupt goals (Charron et al 2017).

No system is bulletproof, however; in polities with long-term 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 positions when in power for a longer time, and build political-business networks that might in themselves generate pressure for collusion between politics and business. In line with resent research in this field (Coviello and Gagliarducci forthcoming; Klašnja 2016), this paper argues that low political competition creates "entrenched parties," (Folke et al 2011, 578) able to control public procurement spending, 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 manipulate public procurement processes – in other words, if low competitiveness in the political arena within a polity decreases competitiveness when it comes to its dealings with the private sector. To this end, it also investigates the weakening of control mechanisms set up to stifle such tendencies.

This is particularly interesting in the light of the last years marketization reforms in the public sector, often seen as parts of the *New Public Management* (NPM) reform package (Hood 1991; Osborn and Gaebler 1992; Pollitt and Bouckaerd 2011). In Europe and the United States public procurement has increased rather dramatically, and while scholars have studied the effects of the creation of new markets for public goods, such as infrastructure, health care and public transportantion (Hood and Dixon 2015), the political context is often not taken into account (O'Toole and Meier's 2015). This paper suggests that without understanding how potentially efficiency enhancing reforms are affected by local political competition, the real effect of marketization might be misjudged.

In order to answer this paper's question, we turn to Swedish municipalities, arguably a least likely case of political manipulation of rules. We have a unique dataset at our disposal, including information about local political competition, public contracts and a large set of other relevant variables in all 290 Swedish municipalities between 2009 and 2015. We find that when one party dominates local politics, procurement processes show increased corruption risks, while turnover has an immediately opposite effect. Most striking is that the risk of obtaining only one bid on what should be an open tender increases with one-party-rule, and that this result holds up also when we use other operationalizations of low political competition, include a wide set of controls, and employ a wide array of estimation techniques. The results suggest that entrenched parties are able to exert favoritistic control over public procurement due to a lower quality of the local bureaucracy, more partisan control over the local audit committee, and with politicians less exposed to media pressure. The paper thus also contributes much-needed suggestions of the causal mechanisms through which entrenched parties can disarm the democratic system's control functions.

The next section describes our theoretical expectations, more in detail. We then turn to a discussion about our research strategy, describing case selection and data in particular. After this discussion, we report the results from the empirical study, while the final section concludes.

Why entrenched parties are more likely to decrease public procurement quality

The rationale behind procurement from outside actors, instead of in-house production is a rather straightforward market mechanism. Generally speaking, the expectation is that competition for public contracts pressure prices downward, and quality upward (Christoffersen et al 2007; Donahue and Zeckhauser 2011). This expectation hinges, however, on the idea of open competition, but 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."

Given unavoidable moral hazard problems (Miller and Whitford 2016), there accordingly is a risk that politicians, bureaucrats, and contractors try to circumvent open competition and thereby put efficiency and quality enhancing mechanisms out of play (for the negative effects on economic growth of a system

connected firms, see Diwan et al 2016). Certainly, corrupt politicians and bureaucrats might be driven by personal monetary incentives (Fisman et al 2014), but as indicated already in the introduction, politicians might also have less selfish motives. They might favor, for example, a local company over an outside competitor because they consider local production to be better for their constituency (Coviello and Gagliarducci forthcoming; Klašnja 2016; Nyblade and Reed 2008). Moreover, there are also other, less strategic, motives for both politicians and bureaucrats, such as habit and loyalty, that both introduce bias against new contractors and for established ones. Finally, as public contracts are often large and not seldom essential for the survival of firms, contractors are under such circumstances incentivized to use all available means to get the contracts, even if it includes shady or illegal activities (Amore-Bennedsen, 2013).

These hazards are well known by policy makers. Public procurement processes are therefore regulated in all OECD member states, as well as by the European Union (OECD 2011), in order to promote transparency in these processes. In Sweden, for example, no less than three laws regulate public procurement processes: *lagen om offentlig upphandling* (2007:1091), *lagen om upphandling inom områdena vatten, energi, transporter och posttjänster* (2007:1092), and *lagen om upphandling på försvars- och säkerhetsområdet* (2011:1029).

The question under scrutiny here is whether low levels of political competition makes it more likely for incumbent rulers to manipulate public procurement processes, and thus override rules such as the set of laws just mentioned. Previous research on corruption makes us believe that could be the case. Starting from the idea that elite competition, and especially inter-party competition, drives up governance quality in democracies generally speaking (Schumpeter 1947), a large comparative literature studying the governance effects 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 corruption (Chang and Golden 20007; Kunicova and Rose-Ackerman 2005; Persson and Tabelini 1999).

The corrective mechanism is thought to run from political competition, which in turn increases accountability, and thus ultimately relies on the assumption that voters punish corrupt incumbents. This assumption is however only modestly supported by empirical studies. 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 hampering influences of ideology and absence of proximate parties (Charron and Bågenholm 2016), and that corruption voting crucially depends on its political salience (Ferraz and Finan 2008; Klašnja et al 2014).

Without meaningful political competition, the incumbent might, first, worry less about potential loss of votes, simply because the margin to the competitor is by definition larger, and, second, that the long tenures often following from low political competition puts the incumbent in a position where they to some extent can control the salience of potential misconducts. In their recent paper, Coviello and Gagliarducci (forthcoming) demonstrate that politicians' length of tenure in office indeed affects outcomes of public procurement processes in Italy. Their findings suggest that with longer time in office comes more risk of corruption, showing that increasing mayoral tenures lead to more local winners, more expensive contracts, and lower quality procurement processes in general. We would argue that this to some extent is an effect of long tenured incumbents' ability to disarm internal, as well as external monitoring functions. If these functions worked as they should, they would, when they sounded the alarm, increase the salience of the issue and raise the electoral cost of such manipulations.

Borrowing the terminology from congressional research, oversight is made up by some combination of "fire alarms" and "police patrols" (McCubbins and Schwartz 1984, 166). In our context, so-called fire alarms are introduced when processes are organized so that individuals or groups outside the colluding ring can follow a process and press the fire alarm if they see something suspicious. We can typically think about bureaucratic processes in this way. They introduce a relatively efficient way for politicians to handle information asymmetries (McCubbins, et al 1989), but can also be thought of as a way to introduce an embedded control mechanism on politicians (Dahlström and Lapuente 2017; Miller and Whitford 2016). Charron et al (2017) describe how procurement in Spanish municipalities are sometimes manipulated by politicians to extract rents, and how this hinges on politicians' ability to control bureaucrats using their powers over appointments and salaries for example. Moreover, an interesting literature on the adoption of the merit system in US states describes how merit systems, and consequently less political control over the bureaucracy was accepted first after a political calculus of the incumbent (Ruhil and Camoes 2003). Similarly, Ting et al (2012) show that incumbents would like to keep a patronage bureaucracy, as long as the incumbent expects to continuing winning its winning streak, while Folke et al (2011) show that political control over the bureaucracy can be transferred into vote gains. These studies are illustrations that politicians appreciate the value of a direct control over the bureaucracy, and that they know how to transfer this control to some other currency, such as votes.

We should however, also consider the possibility that the competing party, or parties, might be less likely to press the fire 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.

Moving on to the next type of oversight, we can think of local or national auditors as so-called police patrols. The metaphor is relevant because audits require a much more active role; auditors have to get an overview of the area, and then strike down on specific targets. The delegation literature seems to agree with McCubbins and Schwartz (1984) that fire alarms are generally more efficient than police patrols, as police patrols require more information and are more labor intensive. The scholarly corruption literature is also generally rather pessimistic about the effects of police patrol authorities such as audit- and anti-corruption agencies, but using within country variation in Brazil, Melo et al (2009) show that political competition actually correlates with the effectiveness of audit institutions, that is, more effective police patrol agencies. 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 conclusion, while audits and other similar functions are not expected to exert a strong curb on corruption in public procurement in general, still in highly institutionalized parts of the world, such as Sweden, they may turn out to be effective controls.

Another external control system, often viewed as an efficient tool for combating corruption, is the media (Treisman 2007). Media coverage of corruption increases salience and can therefore affect the level of corruption voting (Ferraz and Finan 2008; Klašnja et al 2014). Investigative journalism might very well expose shady procurement deals and large media coverage guarantees that voters will be informed of potential political misbehavior (Svaleryd and Vlachos 2009). Gordon (2011) documents how vendors in districts crucial for electoral success for the Republican party, first got unusually large contracts, and then, after the Washington Post had described this as a manipulation effort, how this effect disappeared. This check nevertheless hinges on politicians being susceptible to media critique, which is not given in a context of low political competition (Besley and Prat 2006). For example, with a larger margin to the runner-up the incumbent is probably less worried.

If bureaucrats are to use the more efficient fire alarm mechanism, they both need to be outside the colluding group, and to have incentives to sound the alarm. Police patrols mechanisms, both internal (audits) and external (media), could also be linked to political competition and tenure length, as they too can be manipulated and/or ignored. In situations with low political competition, neither of these prerequisites are necessarily fulfilled. We use the terminology from Folke et al (2011) and refer to parties able to influence the monitoring mechanisms through their dominance as *entrenched* parties. Low political competition creates situations where the same parties are in office over long periods of time. During such time periods,

several control functions could be put out of play. We see at least four ways entrenched parties can take advantage of their positions, and one reason for why they might be pressured to do so by local networks:

First, elected politicians are hierarchically superior to the most highly ranked bureaucrats even in civil service systems. This will under all circumstances put a stress on the neutrality of bureaucrats, but where careers of politicians and bureaucrats are separated, bureaucrats are likely to be able to handle and resist potential pressure to bend rules (Dahlström and Lapuente 2017; Miller and Whitford 2016). Bureaucrats also have the advantage of being inside the system for the long-run. However, with low political competition, the longevity advantage disappears and bureaucrats become more dependent on politicians of a particular party. It is not unlikely that more partisan loyalty follows, as entrenched parties could also bias applicant selection so that mostly those who sympathize with the party in power get appointed (for a classic, and partly similar way of reasoning about salary levels in the bureaucracy and corruption, see Becker and Stigler 1974). Under normal circumstances the bureaucrat is also the expert while the politician – using Weber's ([1921] 1978, 991) famous words – is the "dilettante" facing him or her. But with long tenures, incumbent politicians and parties are likely to become experts as well. They develop their own knowledge, which makes them less dependent on bureaucrats, or they create an organization with the technical expertise within the party, again making them independent from bureaucratic expertise. The power balance thus shifts to the benefit of politicians. Moreover, the competence of bureaucrats could also have an indirect effect. In a study of bureaucratic turnover in India, Iyer and Mani (2012) describe how politicians can use frequent reassignments to control bureaucrats even in civil service systems that should insulate bureaucrats from political pressure. Highly competent bureaucrats are however less susceptible to such 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."

Second, politicians can always use their appointment power and appoint loyalists (Lewis 2008). This is also done in low-patronage countries, such as the UK (Boyne et al 2010) and Sweden (Dahlström and Holmgren 2017). Entrenched parties are nevertheless incentivized to use this power more aggressively, because with turnover comes the risk of the other party doing the same thing the next turn, while with low political competition this cost diminishes (Grzymała-Busse 2007).

Third, as already briefly mentioned, with a larger vining margin, or outstanding political craft and experience—the very definition of low political competition—comes the opportunity to from time to time handle critique from outside actors, such as the media, and thus accept some electoral cost. Entrenched parties are therefore likely often in a position where they can ignore the risk of being scrutinized by media.

Forth, and finally, entrenchment also implies stronger networks with the outside community, including tighter bonds with contractors (Coviello and Gagliarducci forthcoming). This will probably increase pressure on politicians to circumvent open competition, as well as their ability to do so. In such cases, well-

connected contractors likely find themselves in positions to call in favors from time to time. And at the same time, politicians that were happy with what these contractors have delivered before 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 political competition and the quality of public procurement processes. We also expect the quality of the bureaucracy to be lower, a tighter political control over audits, politicians to be less susceptible to media critique and, finally, tighter networks between politics and business, with more local winners.

Empirical strategy

In the remainder of the paper, we will statistically estimate the relationship between political entrenchment and public procurement quality in Swedish municipalities. Such an empirical strategy of 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 country of moderate size, and a unitary state, 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 on behalf of national-level averages.

The case of Sweden

Sweden is a medium-sized (ten million inhabitants) state in northern Europe. Despite its unitary structure, Swedish 290 municipalities are unusually autonomous and legally independent entities, in charge of most public services – such as education, child-, social- and elderly care, resulting in a majority of the country's public servants being employed in the municipal sector (Statistics Sweden 2014). Like on the national level, its proportional electoral system means that local politics tend to involve a relatively large number of parties represented, usually the seven or eight that are represented in the national parliament, with an increasing but still limited presence of local parties. Despite a long-standing dominance of the Social Democratic party on the national level (although they were in the opposition during most of the period under study herein), local politics have traditionally contained much more ideological variation, with a considerable share of municipalities ruled by centre-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 noted relative absence of corruption, clientelism and institutional failure. Despite a recent growing trend of political appointees, the nature of Swedish public administration is still decidedly Weberian and meritocratic, also at the local level (Dahlström, et al 2014; Garsten, et al 2015). Each municipality has its own audit committee, responsible for overseeing 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 usually the chair is a representative of the opposition, and the actual audit reports are almost aways written by outside experts.

Furthermore, going local is likely the most appropriate level for 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 what districts receive funds (Berry and Fowler 2015; Berry et al 2010; Kiewiet and McCubbins 1991; Kriner and Reeves 2015; Levitt and Snyder 1995). Even in Sweden, there are indications of common recourses sometimes being funneled locally for partisan purposes (Dahlberg and Johansson 2002; Johansson 2003). Other studies have shown that the length of tenure in office for mayors in Italy is associated with adverse procurement outcomes (Coviello and Gagliarducci forthcoming), that family ties to local politicians in Denmark—another low-corruption country—increase firm profitability—especially in industries relying on public demand (Amore-Bennedsen, 2013), and that low political competition is associated with higher legal political rents among local governments even in Sweden (Svaleryd and Vlachos 2009). Therefore, it is reasonable to expect that biased spending will be traceable foremost on the local level.

Sweden and its municipalities is also an ideal setting in which to study public procurement processes: First, according to the Swedish Competition Authority (SCA), public works, goods and services of about 625 billion Swedish *kronor* ($71 billion) were bought by public entities such as municipalities, agencies, publicly owned companies in 2012. This adds up to nearly a fifth of total Swedish GDP in the same year (SCA 2015, 14), and puts Sweden in the upper quartile in comparison with other OECD countries, where the Netherlands is in the very top, and the average is about 13 percent (OECD 2011, 149). Public procurement is thus a large and important part of public spending in Sweden, as in the rest of the OECD. Furthermore, reflecting its importance as the principal public service provider in the country, 70 percent of all procurements are made by municipalities and their companies (SCA 2015, 29).

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 (NUTS3) contains an average of 14 Swedish municipalities, and, although the thirteen largest municipalities have a population exceeding 100,000, the median size is a modest 15,235 inhabitants.

Although the strategy of stydying within-country variation in Sweden clearly stops short of generating universally applicable results across all institutional, political, and cultural contexts, the underlying expectation is that any positive results indicating problems with institutional quality here would likely be more limited than in contexts where politicians are generally freer to engage in illicit, clientelistic, or corrupt activities.

Swedish public procurement data

In Sweden, the only publicly available source of public procurement data is the EU-wide Tenders Electronic Daily,[2] which only reports large-value contracts regulated by the EU's Public Procurement Directives. Given the paper's main interest in municipal public procurement, we also collected data on smaller contracts whose values fall below the EU reporting thresholds, but are above the national thresholds.[3] As there is no public database of these smaller contracts, we obtained the data directly from a private data provider (Visma Opic),[4] which in effect implements the relevant transparency provisions of the Swedish Public Procurement Act. According to 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. Nevertheless, data quality is an issue forcing our analysis, leading us to only use those variables that are reliable enough (Fazekas and Tóth 2016). 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.

In addition, in order to increase the precission in our measures, we restrict the sample in two other 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), that is, all those markets which have less than five unique bidders in the whole 2009-2015 period. This equals 521 tenders, or 0.58 percent of the sample, leading to a final tender count of 89,430.

Single bidding ratio as an indicator of public procurement quality

Our measure of public procurement quality aims to directly measure a deliberate restriction of open competition for government contracts in order to benefit a certain company. We operationalize our dependent variable as only one bid being submitted in a tender on an otherwise competitive market. Specifically, we employ a simple measure of the extent to which procurement tenders receive a single bid in a municipality: *single bidding ratio*. If a municipality, during a given year, has had multiple bidders for all of its tenders, it

[2] http://ted.europa.eu/

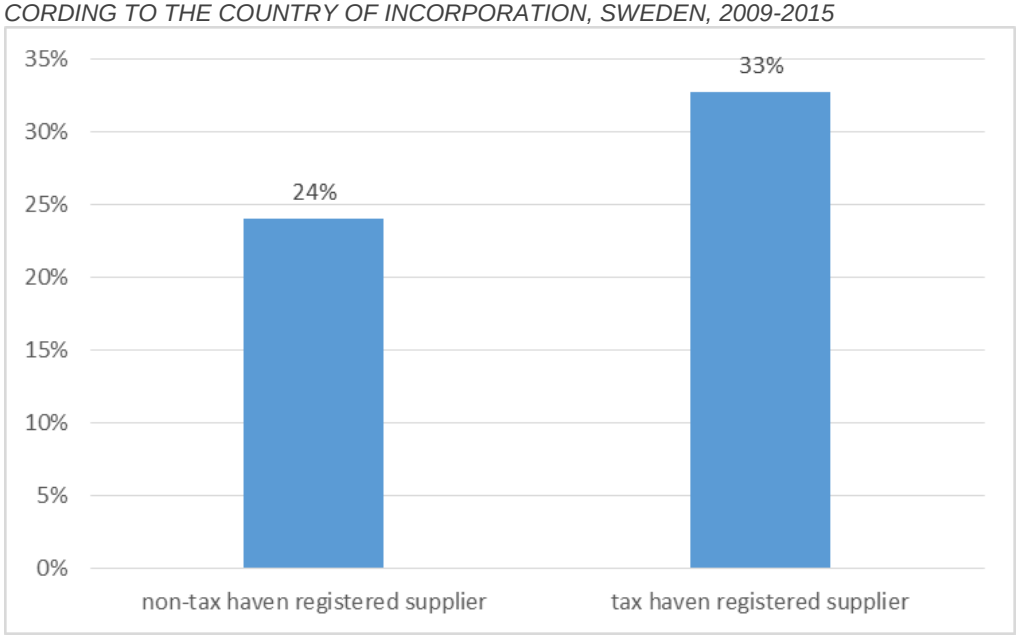
[3] This contract value range for example in 2015 was approximately between 54,000 and 134,000 EUR.

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

will score a 0. If no tenders received more than 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 awarded of all the awarded contracts by a municipality in a given year.[5]

Altough single bidding on competitive markets may result from a range of non-corrupt situations, such as incompetence or capacity constraints in the industry, a wide ranging evidence points at its validity as a corruption risk indicator (Charron et al 2017). In the Swedish context, we show 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 registered in non-tax haven countries such as Germany (figure 1). This suggests that proceeds of corruption that may have been earned through single bidding contracts are then often channeled through secrecy jurisdictions, in order to hide money flows (Shaxson and Christensen 2013). 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 (12.1 percent single bidding in contracts below initial estimates, that is discounted final contract value, as contrasted with 14.3 percent single bidding in contacts with on or above initial estimates, that is no or negative discount).

FIGURE 1, COMPARING THE INCIDENCE OF SINGLE BIDDING (%) AMONG FOREIGN SUPPLIERS ACCORDING TO THE COUNTRY OF INCORPORATION, SWEDEN, 2009-2015



Note. Differences are significant at the 6% level, significance levels obtained using monte carlo random permutation simulations in stata 14.0, N=501

[5] Cancelled and incomplete tenders are excluded.

Public bodies that have corrupt or illicit intent can avoid detection in two ways: First, they may conceal their 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 the public notices, without which detecting wrongdoing is nearly impossible (e.g. name of the winner and contract value). Both of these strategies pose specific risks to our estimations, hence we also test whether they are correlated with our dependent. 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.[6] We measure omitted information by counting the number of data points missing from the following seven mandatory items: buyer address, buyer post code, buyer settlement, contract value, supplier name, number of bids received, and contract award date. Quite reassuringly, on the level of municipalities, neither of these indicators is significantly correlated with single bidding ratio, our main dependent variable (linear correlation coefficients are -0.072 and -0.022 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.[7] Although most municipalities have experienced at least one turnover in power, as late as in 2015, over one-fifth of Swedish municipalities still had not. It should be noted that, due to Sweden's proportional electoral system, staying in power for an extended period of time requires a large measure of political skill, both relating toward the electorate and other parties in the municipality. For example, if voters of a ruling party to the right, such as *Moderaterna*, are not satisfied with the party's rule or policies, there are three ideologically close alternatives representing a similar ideology (*Centerpartiet*, *Folkpartiet*, or *Kristdemokraterna*). 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 Sweden is perhaps not usually associated with the type of authoritarian "strongman rule" commonplace in many developing countries, the term is frequently used

[6] Local budget data obtained from Statistics Sweden, see: http://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__OE__OE0107__OE0107A/VerksKostn/?rxid=cf1795c9-c357-4f58-bacc-7b9c37110dba.
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]).

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

about Swedish mayors (to the extent that one of the country's public service channels in 2010 aired a comedy series about a small-town mayor entitled *Starke man*, i.e., "strongman."

Secondly, we also employ an alternative operationalization of political entrenchment through the variable *new ruling party*, indicating whether the incumbent party is new for a given term.[8] Although one-party rule is likely the best representation of an entrenched political landscape, this additional measure provides a contrasting perspective of mayoral parties' entrenchment. Even if strongly incentivized to embark on such a process, new ruling parties are unlikely to achieve this in the short run, as their 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 outshadows any type of spoils system (Dahlström et al 2014).

Control variables

In addition to political entrenchment, the estimations below will also include the size of population, and (land) area of each municipality. More populous municipalities will likely have more competitive markets, and thus prone to receive a higher number of procurement offers, while larger municipalities involve larger transaction costs that may dissuade companies from placing an offer. Furthermore, we include median income, as wealthier municipalities reasonably will tend to attract more companies. Finally, we include the identity of the ruling party, in part due to the fact that the 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 only have been ruled by the main party on the political left, *Socialdemokraterna*, which tend to be industrial small towns, and the largest conservative party, *Moderaterna*, 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.

Estimation strategy

To predict single bidding, we employ a panel regression framework, with errors clustered at the municipal level. As the within-municipality variation in one-party rule is too small for any meaningful interpretations from fixed effects (FEs) estimations,[9] its relationship to single bidding is estimated using random effects (RE)-estimation, while the models using *New ruling party*, which contains ample within-municipality variation,[10] use municipal FEs. As single bidding is only weakly autocorrelated,[11] we will mainly rely on static

[8] This is captured on a term-period basis, except when ruling party changes ex-elections.

[9] Only 17 of Sweden's 290 municipalities (5.9%) lost their one-party rule-status during the 2009-15 period.

[10] 169 municipalities (58%) had a new party taking over during the 2009-15 period.

estimations, complemented by AR1 and lagged dependent variable (LDV) approaches.[12] Table 1 below displays the summary statistics of the main variables.

TABLE 1, DESCRIPTIVE STATISTICS FOR VARIABLES USED IN MAIN ESTIMATIONS

	n	mean	sd	min	max
Single bidding ratio	1,901	12.5	14.9	0	100
One-party rule	1,901	0.24			
New ruling party	1,901	0.29			
Population (log)	1,901	9.89	0.95	7.79	13.7
Area (log)	1,901	6.49	1.26	2.16	9.87
Median income	1,901	238,585	25,033	185,383	350,934
Ruling party (% of cases)					
Socialdemokraterna	1,901	48.1			
Moderaterna	1,901	31.2			
Centerpartiet	1,901	15.3			
Kristdemokraterna	1,901	1.58			
Folkpartiet	1,901	2.00			
Vänsterpartiet	1,901	0.79			
Other party	1,901	1.05			

Results

To recapitulate, our overarching hypothesis is that one-party rule municipalities will have less well-functioning public procurement processes, operationalized through the variable *single bidding ratio*, while municipalities with a new ruling party will have more well-functuning public procurement processes, and thus display lower single bidding ratios. Below, we first present the results of the main tests of this link, followed by a series of robustness tests. Finally, the closing part of the section investigates the proposed mechanisms through which any such relationship is likely to flow.

Main results

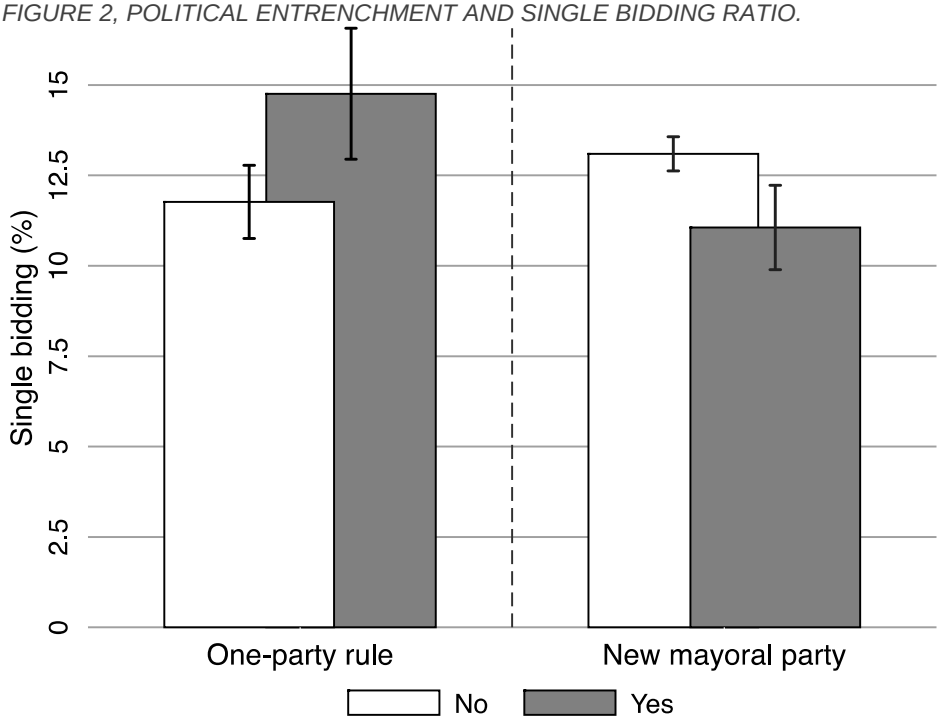
First, a simple bivariate look offers initial support for both hypotheses. As evident from figure 2, one-party-rule-municipalities are indeed associated with a higher propensity for single bidding. Compared to

[11] The correlation coefficient between single bidding and its one-year lag is weakly positive (r=0.13); a Wooldrige (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).

[12] The fact that the LDV approach excludes 14% of the cases (i.e. all observations for 2009), and in the fixed effects estimations likely introduces Nickel bias, should be noted.

their equivalents that have experienced turnover, it is associated with three points higher single bidding, an increase of roughly one third (or a fifth of a standard deviation). Contrastingly, new-ruling-party-municipalities score two points lower in single bidding than municipalities with returning incumbent parties.

FIGURE 2, POLITICAL ENTRENCHMENT AND SINGLE BIDDING RATIO.



Note. n=1,901. Full results for One-party rule in column 1, table 2; full results for New ruling party in column 1, table 3. Capped lines display 95% confidence intervals using standard errors clustered at the municipal level. Estimations using New ruling party includes municipality-fixed effects.

For one-party rule, this relationship is only marginally weakened when introducing the battery of control variables, which work in the expected direction (sparsely populated, poor, and geographically large municipalities significantly predict higher single bidding). Column 6 in table 2, which, along with year fixed effects, displays the fully controlled static estimation, shows that one-party rule is associated with a 2.6 ($p<0.05$) increase in single bidding, once all of these factors are accounted for. To account for the – albeit modest (see note 10) – serial correlation, columns 7 (bivariate) and 8 (fully controlled) display the results from AR1 estimations, while columns 9 and 10 include a lag of single bidding ratio. The first set of estimations are essentially identical to the static iterations, while the LDV approach diminishes the coefficient

for one-party rule to about 80 percent of its original size, which is nevertheless still significant at the 95 percent level.[13]

TABLE 2, SINGLE BIDDING RATIO AND ONE-PARTY RULE.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
			Static				AR1		LDV	
One-party rule	2.99***	2.85***	3.10***	2.90***	2.52**	2.60**	3.09***	2.66**	2.48**	2.06**
	(1.04)	(1.01)	(1.03)	(1.00)	(1.11)	(1.04)	(1.07)	(1.08)	(1.03)	(1.02)
Population (log)		-1.96***				-1.43***		-1.44***		-1.35***
		(0.52)				(0.48)		(0.53)		(0.52)
Area (log)			1.36***			0.87**		0.91**		0.82*
			(0.36)			(0.43)		(0.41)		(0.46)
Median income				-0.00***		-0.00**		-0.00*		-0.00**
				(0.00)		(0.00)		(0.00)		(0.00)
Single bidding ratio$_{t-1}$									-0.01	-0.03
									(0.04)	(0.04)
Constant	11.77***	28.47***	0.28	28.19***	9.60***	27.20***	11.73***	33.16***	12.61***	31.68***
	(0.52)	(5.70)	(2.52)	(4.70)	(1.33)	(8.55)	(0.53)	(7.54)	(0.68)	(8.89)
Observations	1,901	1,901	1,901	1,901	1,901	1,901	1,901	1,901	1,576	1,576
Municipalities	288	288	288	288	288	288	288	288	284	284
Municipal FE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Year FE	NO	YES	YES	YES	YES	YES	NO	YES	NO	YES
Party FE	NO	NO	NO	NO	YES	YES	NO	YES	NO	YES

*Note. Standard errors, clustered at the municipal level, in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

Shifting focus to our second operationalization of political entrenchment, new ruling party, the results are in line with the bivariate findings above, as we observe an equally consistent negative, albeit both smaller and weaker, relationship with single bidding ratio. Across the estimations, its coefficient varies little depending on the choice of specification, negative to the magnitude of 1.90 to 2.21 points, and significant at the 95 percent level in the static estimations (columns 1-5), and the 90 percent level or better in the estimations accounting for autocorrelation (columns 6-9).

[13] It should be noted that in supplementary estimations, not displayed here but available by request from the authors, reveal that this decrease is driven by the loss of observations caused by the inclusion of the LDV, rather than the accounting of the autocorrelation in itself.

TABLE 3, SINGLE BIDDING RATIO AND NEW RULING PARTY.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Static			AR1		LDV	
New ruling party	-2.03**	-1.90**	-2.00**	-2.21**	-2.11**	-2.00*	-2.03*	-2.19**	-2.08*
	(0.84)	(0.87)	(0.86)	(0.92)	(0.93)	(1.16)	(1.22)	(1.03)	(1.13)
Population (log)		24.99			24.67		-4.52		29.94
		(21.29)			(21.40)		(5.84)		(29.74)
Median income			0.00		-0.00		-0.00		-0.00
			(0.00)		(0.00)		(0.00)		(0.00)
Single bidding ratio$_{t-1}$								-0.16***	-0.17***
								(0.04)	(0.04)
Constant	13.09***	-236.2	2.04	11.62***	-225.0	13.64***	72.38**	15.68***	-271.3
	(0.24)	(210.0)	(32.38)	(1.64)	(207.2)	(0.44)	(35.83)	(0.57)	(286.9)
Observations	1,901	1,901	1,901	1,901	1,901	1,613	1,613	1,576	1,576
R-squared	0.00	0.02	0.02	0.02	0.02			0.03	0.06
Municipalities	288	288	288	288	288	287	287	284	284
Municipal FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	NO	YES	YES	YES	YES	NO	YES	NO	YES
Party FE	NO	NO	NO	YES	YES	NO	YES	NO	YES

*Note. Standard errors, clustered at the municipal level, in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

Robustness

Although the main analyses already contain several specifications testing the relationship between political entrenchment and single bidding, a number of alterations to the original estimation strategy were made to ascertain the robustness of our findings.

First, we employ panel-corrected standard errors (Beck and Katz 1995, 2009), which results in negligible changes to the main results (see table A2 and A3 in the online appendix for full results).

Second, we estimate the effect of one-party rule and new ruling party on single bidding ratio on the contract level, which allows for controlling for contract characteristics which are likely to influence bidder numbers (tables A4 and A5). To this end, we conduct propensity score matching of contracts using the following covariates (Imbens and Wooldridge 2009): 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). These variables are expected to control for major confounding factors which would otherwise bias our effect estimates. Using

a fundamentally different analytical method and a different level of observations delivers strikingly similar effect size estimates of 1.9 to 3.8 points for one-party rule compared to the above municipality-level time series models (significant at all usual confidence levels).

Third, we use an alternate indicator of political entrenchment, *ruling party vote share*, under the assumption that, similar to incumbents who have monopolized power for an extended period of time, electorally larger incumbent parties will have more leeway in shaping both policy and administrative structure of a polity. As this variable contains meaningful within-municipality variation, tables A6 and A7 display the same estimations with and without municipality-fixed effects. The results are consistently positive with the exception of the uncontrolled FE estimation using AR1 errors (but significantly positive once controls are included), and, notably, significant at the 90 percent level or better in the bivariate RE-estimation (column 1) as well as all specifications employing the full battery of control variables both using RE and FE.

Fourth, we exclude municipal-years with fewer than three tenders from the main estimations (tables A8 and A9). This approach renders results in the same direction as in table 2 and 3, with one-party rule significantly positive at the 95 percent level in all estimations except the fully controlled AR1 model (p=.107), while new ruling party remains consistently negative yet shy of significance.

Fifth, we exclude the northern region of Sweden (SE3, using the NUTS nomenclature), where most small and isolated municipalities are found, in order to check whether our findings are driven by the differences between the sparsely populated north with less developed supplier markets and more entrenched parties and the densely populated south with more developed procurement markets and more competitive local politics (see figure A1). While still substantively reflecting the main results, both the coefficient for one-party rule (table A10) and new ruling party (table A11) weakens, losing significance in the presence of certain controls (p=.108 for one-party rule with only party FEs; p=.104 for new ruling party with only population), and the dynamic estimations (for one-party rule, only the LDV estimations, which, again, suffer from lost observations; for new ruling party, both AR1 and LDV estimations).

Sixth, we also repeat the contract-level analysis by excluding the northern region of Sweden (SE3) (table A12 and A13). Again, our estimates are close to the above main regression results with effect size estimated to be 0.5 to 3.1 percent (with only the matched difference statistically significant).

Seventh, since the three latter alterations, which to a varying degree suppress the focal results compared to the original estimations, also strongly relate to the population size of municipalities,[14] there is reason to believe that simply including this factor as a control – as we did in the original estimations – does not sufficiently account for its influence, particularly in the FE models used for new ruling party, which by

[14] Mean population size for SE3- versuts SE 1 or SE2-municipalities = 21,054/39,757. Mean population size for municipality-years with below- versus above three tenders = 9,474/37,682.

design only manages to control for within-municipality variation in population. Indeed, as Rose-Ackerman (1999, 101) notes, corrupt networks are likely to be more easily maintained in smaller settings, where there tends to be a more limited number of actors involved in such activity. In line with this, and regardless of whether the goal is corruption or simply pragmatism, smaller municipalities may also be conducive for a higher degree of informalism inherent to the political-bureacuratic-business axis, in turn leading to political entrenchment having a comparatively larger effect over things like public procurement quality. Therefore, we rerun the original estimations with the sample split down the median in terms of population size (15,235) (table A14 and A15). Indeed, the results strongly indicate that political entrenchment is more pernicious in smaller municipalities, especially when it comes to the short-term process of instating a new ruling party, whose negative coefficient in this setting dramatically increases to more than double its original size, while it is rendered insignificantly *positive* in large municipalities. The same trend is, to a lesser degree, observable for one-party rule, which compared to the original estimations displays larger coefficients in small municipalities and smaller in large ones.

Finally, we consider the possibility of an asymmetric dimension to the possibilities of manipulating procurement processes. Specifically, even if the sheer proportion of single bidding tenders is small, the most convincing way of ascertaining that competition is not compromised is when every single tender is competitive. To this end, we predict the likelihood of all tenders having more than one bid, contingent on one-party rule (table A16) and new ruling party (table A17). Once population size[15] is taken into account, one-party rule is associated with a 58 percent higher probability of having at least one single bidding tender, compared to experience with turnover (pr = 0.25 versus 0.16; difference: $p<0.01$; see figure A2 for predicted probabilities). The corresponding difference between municipal-years with new ruling parties and returning incumbents is also in the expected direction, but left just shy of significance (pr = 0.22 versus 0.27; difference: $p=.13$), once the standard battery of controls is included (although, when using conditional fixed effects, the association is significant at the 90 percent level).

Mechanisms

We now turn to the specific mechanisms accounting for why and how political entrenchment may decrease competition in public procurement. In the theoretical discussion, we identified three potential mechanisms through which this relationship could operate. First, political entrenchment may suppress external "police patrol" functions within a polity. Second, entrenched politicians may also silence the "fire alarm" by ensuring that their own competency is not rivaled by local bureaucrats. Third, networks between politicians and local business may have had longer time to develop when one party has been in rule for an extended period of time.

[15] This factor is bound to mechanically increase the risk of at least one instance of single bidding, due to the simple fact that larger municipalities tend to issue a greater number of tenders and contracts.

Using cross-sectional averages for 2011-2014 – the one full term period with data available for single bidding[16] – we first analyze the respective associations between one-party rule and new ruling party and, in turn, the "police patrol" mechanisms of audit control – operationalized as whether the chair in the municipal audit comes from the ruling majority (data from Statistics Sweden 2017a), as well as media accountability – using a survey question for politicians in the ruling majority of the extent to which election promises come to fruition through local media pressure (data from a 2012-13 survey of local politicians, Gilljam and Karlsson 2013). Second, for the fire alarm mechanism, we estimate human capital in bureaucracy – measured as the share of municipal employees with post-secondary education (data from Kolada, n.d.). Finally, we estimate local networks as the share of local winners in municipal public procurement (using our own data, provided by Visma Opic). We then estimate the association between these mediating variables and single bidding ratio. Each relationship is tested bivariately and with the full set of control variables (i.e. population, area, median income, and ruling party ID). For human capital in bureaucracy, the human capital of the local population at large (operationalized as share inhabitants with high education with data from Statistics Sweden 2017b) has been included as a further check that it is not the general level of education in the population that drives both political entrenchment and human capital in the bureaucracy. Similarly, 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 does not drive both entrenchment and politicians' sensitivity to journalists (data from TI Mediestatistik n.d.).[17]

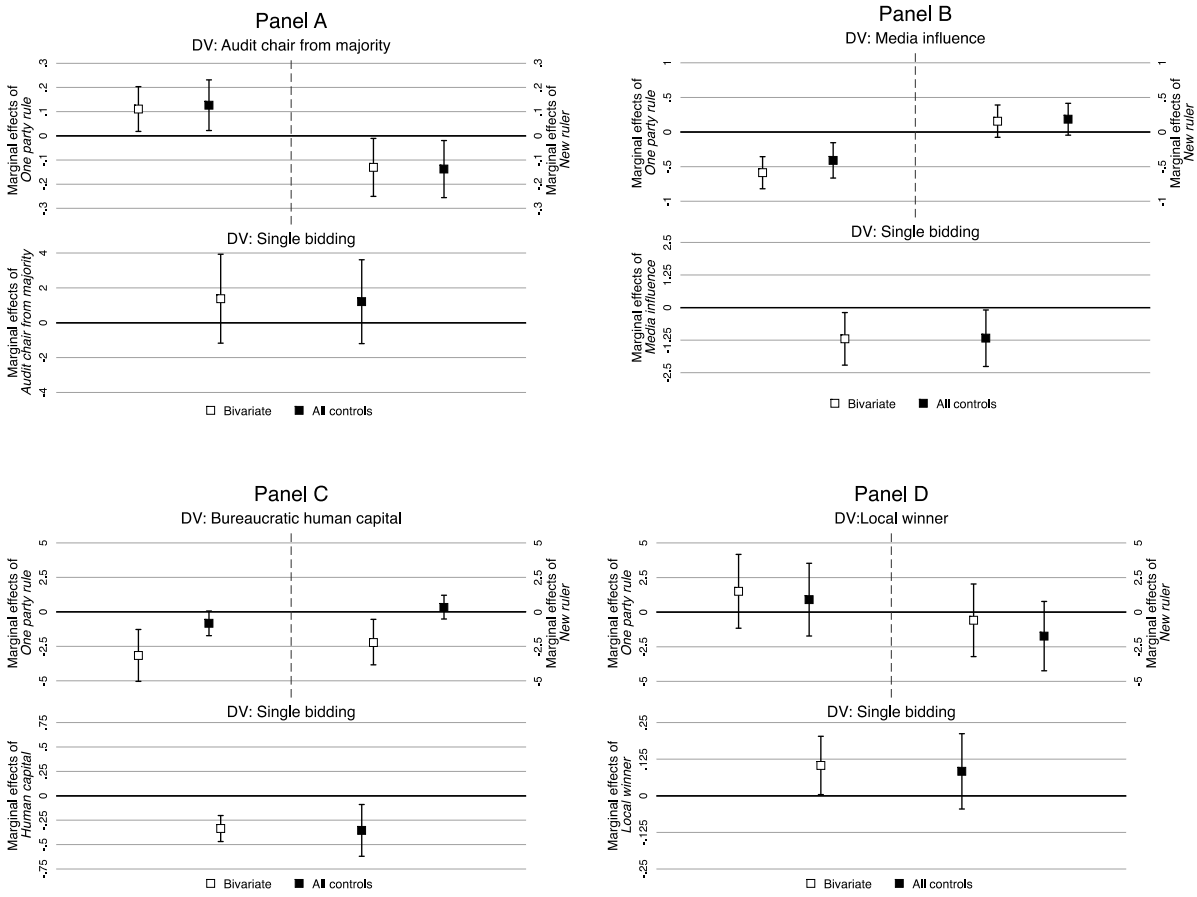
The results, displayed in figure 3 below, tell a mixed but largely predictable story. Although almost all of the relationships are in the expected direction, not all are significant in both steps. Although one-party rule and new ruling party strongly predict majority-chaired audits, positively in the first case and negatively in the second, this is in turn only insignificantly related to more single bidding (panel A). On the other hand, both media influence (panel B) and bureaucratic human capital (panel C) are significantly lower in one-party rule municipalities (at the 90 percent level for human capital with all controls included), insignificantly higher (except for the bivariate estimation for human capital) in municipalities with a new ruling party, and predict lower levels of single bidding themselves. The most glaring absence of a meaningful relationship, between new ruling party and human capital, is not surprising, considering how the Weberian character of the Swedish system of public administration, as opposed to a spoils-system, likely prevents an incoming incumbent from quickly reshuffling the bureaucracy to match their preferences. Finally, local

[16] In cases of intra-term-period changes in ruling party, only the years for which the party that ruled during 2012 – the year for which the Gilljam and Karlsson's (2013) survey applies – are taken into account.

[17] 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 2 tenders with information on single bidding recorded during the term period are included. While this strategy manages to exclude most extreme cases, the municipality of Dals-Ed (seven tenders during the term period) remains an outlier and is dropped. Descriptive statistics for available in table A18 in the online appendix.

winner ratio (panel D) is significantly related neither to one-party rule, new ruling party, nor (once control variables are included) single bidding.

FIGURE 3, MECHANISMS.



Note. Capped lines display 95% confidence intervals using robust standard errors. Estimates based on regressions of which the full results are available in tables A19-A22 in the online appendix.

The fact that essentially all relationships go in the expected direction, but display varying strength individually, points to a multicausal story at play, where certain plot points are more convincing than others. While it seems like the internal police patrol function is indeed weaker in one-party municipalities and stronger where power has just shifted, its potency for ascertaining competitive procurement is itself only marginal, the media appears to be an important external check. Similarly, high skilled bureaucrats appear to be able to use their "alarm" function to a higher degree in turnover municipalities, with better procurement as a result. Finally, we find only very weak evidence of local networks disproportionally influencing the procurement process.

Conclusions

This paper suggests that tendencies to manipulate public procurement processes so that they serve the interest of the party, constituency, group, or individual politicians instead of the general public is stronger when political competition is low (Fazekas 2015; Svaleryd and Vlachos 2009). Employing a unique dataset, including information about local political competition, going back decades in time, public contracts and a large set of other relevant variables in Swedish municipalities between 2009 and 2015, our results demonstrate that when political competition is low, and especially when one party dominates for a long time, public procurement processes show signs of manipulation. Although marginally weaker, we also observe that when a new ruling party comes to power, procurement processes are more well-functuning. These relationships are compounded in smaller municipalities, where these problems are already more severe, and are roubust to a large number of alterations to the original estimation strategy.

Moreover, we propose that when one party dominates the political scene, the control mechanisms within the political system—internal as well as external—will tend to erode: The entrenched party prefers bad administration, disarms the audit function, and can afford to neglect media scrutiny. In line with this argument, we show that political entrenchment is empirically associated with a less educated bureaucracy, thus potentially more easily manipulated, a municipal audit system dominated by the ruling majority, and rulers being less prone to be influenced by media pressure.

Considering its strong history of programmatic parties and low levels of corruption and clientelism, Sweden is a particularly suitable case for the purposes of this study, in all likelihood very close to a least-likely case. Thus, our case selection makes our study stand in sharp contrast to recent papers, which have tended to focus on young democracies and/or institutionally weak settings (Coviello and Gagliarducci forthcoming; Klašnja 2016).

The results corroborate a fundamental expectation in the political economy literature, when it shows 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 compared between countries. The paper also advances the knowledge when it shows how entrenched parties can take advantage of the bureaucratic apparatus (Folke et al 2011; Ruhil and Camoes 2003). The latter finding could shed new light over why corrupt politicians are surprisingly often re-elected (Chang et al 2010), because if the salience of corruption is critical for corruption voting, as recently suggested (Ferraz and Finan 2008; Klašnja et al 2014), then disarming mechanisms that could otherwise draw voters' attention to the issue gives the entrenched party a huge advantage.

The paper, furthermore, contributes to an ongoing discussion about Swedish politics and institutions, where scholars today disagree whether low political competition and entrenched parties really increase risks for rent seeking. Although they discuss distinct types of rents, Bergh et al (2013) finds no, or very weak, association between corruption and low political competition, while Svaleryd and Vlachos (2009) conclude that legal rent seeking is more common in municipalities with a dominant party or party group, and Hyytinen et al (2008) suggest that the political leaning of the local administration influences whether local firms are favored or not. With the new data presented and analysed in this study, there are, at least when it comes to public procurement, indeed reasons for concern.

Finally, our results are also interesting for policy makers and scholars in public administration. This study implies that advocates for marketization in the public sector, and students thereof, should pay close attention not only to the administrative, but also to the party poltical 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 to 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 (Hood and Dixon 2015), and while creating a market for example for infrastructure, or elederly care might hold a potential for increased productivity in theory, such reforms might instead be turned into partisian assets in the hands of local party bosses.

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APPENDIX

TABLE A1. SWEDISH MUNICIPALITIES AND ONE-PARTY RULE

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

(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
Mölndal	*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
Norrtälje	*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	Vårgårda	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		

TABLE A2. SINGLE BIDDING RATIO AND ONE-PARTY RULE,

PANEL CORRECTED STANDARD ERRORS.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
			Static				AR1		LDV	
One-party rule	3.20***	2.85***	3.10***	2.88***	2.64***	2.84***	3.11***	2.82***	2.02***	1.59**
	(0.50)	(0.54)	(0.48)	(0.49)	(0.40)	(0.47)	(0.62)	(0.58)	(0.68)	(0.73)
Population (log)		-2.05***				-1.55***		-1.53**		-1.12
		(0.41)				(0.54)		(0.63)		(0.69)
Area (log)			1.42***			1.04***		1.03***		1.08***
			(0.18)			(0.17)		(0.16)		(0.28)
Median income				-0.00***		-0.00***		-0.00***		-0.00**
				(0.00)		(0.00)		(0.00)		(0.00)
Single bidding ratio$_{t-1}$									0.10	0.07
									(0.21)	(0.22)
Constant	11.75***	29.17***	-0.35	28.30***	9.23***	26.90***	11.74***	26.69***	11.19***	22.19***
	(0.12)	(4.10)	(1.24)	(1.45)	(0.16)	(5.01)	(0.12)	(5.25)	(2.46)	(6.51)
Observations	1,870	1,870	1,870	1,870	1,870	1,870	1,870	1,870	1,544	1,544
R-squared	0.01	0.04	0.04	0.04	0.03	0.06	0.00	0.04	0.02	0.06
Municipalities	278	278	278	278	278	278	278	278	270	270
Municipal FE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Year FE	NO	YES	YES	YES	YES	YES	NO	YES	NO	YES
Party FE	NO	NO	NO	NO	YES	YES	NO	YES	NO	YES

*Note. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

TABLE A3. SINGLE BIDDING RATIO AND NEW RULING PARTY,

PANEL CORRECTED STANDARD ERRORS.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Static			AR1		LDV	
New ruling party	-2.20*	-2.08*	-2.16*	-2.25*	-2.19*	-2.10*	-2.03*	-2.18**	-1.99**
	(1.25)	(1.25)	(1.23)	(1.16)	(1.19)	(1.18)	(1.17)	(0.93)	(0.86)
Population (log)		15.82			20.49		22.74**		33.50***
		(13.06)			(13.17)		(11.10)		(6.11)
Median income			-0.00		-0.00		-0.00		-0.00
			(0.00)		(0.00)		(0.00)		(0.00)
Single bidding ratio$_{t-1}$								-0.16	-0.16
								(0.21)	(0.21)
Constant	8.89***	-161.9	15.05	7.54***	-186.2	8.89***	-215.0*	11.03***	-330.8***
	(1.26)	(138.3)	(18.09)	(2.18)	(139.0)	(1.21)	(120.2)	(1.56)	(65.29)
Observations	1,870	1,870	1,870	1,870	1,870	1,870	1,870	1,544	1,544
R-squared	0.28	0.29	0.29	0.29	0.29	0.32	0.34	0.28	0.30
Municipalities	278	278	278	278	278	278	278	270	270
Municipal FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	NO	YES	YES	YES	YES	NO	YES	NO	YES
Party FE	NO	NO	NO	YES	YES	NO	YES	NO	YES

*Note. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

TABLE A4. SINGLE BIDDING RATIO AND ONE-PARTY RULE, CONTRACT-LEVEL.

	Raw comparison	Propensity score matching
Turnover	11.493	9.518
One-party rule	13.362	13.353
Difference	*1.868****	*3.835****
95% confidence interval: lower bound	1.140	1.830
95% confidence interval: upper bound	2.597	5.840
N	56,303	56,301

TABLE A5. SINGLE BIDDING RATIO AND NEW RULING PARTY, CONTRACT-LEVEL.

	Raw comparison	Propensity score matching
Returning ruling party	11.773	12.364
New ruling party	11.631	11.631
difference	-0.142	-0.733*
95% confidence interval: lower bound	-0.768	-1.495
95% confidence interval: upper bound	0.483	0.029
N	27,846	27,846

*Note: * significant at 6% level*

TABLE A6. SINGLE BIDDING RATIO AND RULING PARTY VOTE SHARE, FE ESTIMATION.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Static			AR1		LDV	
Ruling party vote share	0.08	0.09	0.09	0.14*	0.15*	-0.01	0.20*	0.00	0.21**
	(0.06)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.10)	(0.10)	(0.10)
Population (log)		29.80			29.14		-3.87		32.87
		(20.92)			(21.13)		(6.39)		(29.59)
Median income			0.00		-0.00		-0.00		-0.00
			(0.00)		(0.00)		(0.00)		(0.00)
Single bidding ratio$_{t-1}$								-0.16***	-0.16***
								(0.04)	(0.04)
Constant	9.67***	-287.7	-5.31	4.53	-279.2	13.57***	56.33	14.88***	-314.2
	(2.27)	(206.4)	(33.18)	(3.48)	(203.9)	(2.44)	(35.75)	(3.71)	(284.4)
Observations	1,898	1,898	1,898	1,898	1,898	1,610	1,610	1,574	1,574
R-squared	0.00	0.02	0.02	0.02	0.02			0.03	0.06
Municipalities	288	288	288	288	288	287	287	284	284
Municipal FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	NO	YES	YES	YES	YES	YES	YES	YES	YES
Party FE	NO	NO	NO	YES	YES	NO	YES	NO	YES

*Note. Standard errors, clustered at the municipal level, in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

TABLE A7. SINGLE BIDDING RATIO AND RULING PARTY VOTE SHARE, RE ESTIMATION.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Static			AR1		LDV	
Ruling party vote share	0.07*	0.05	0.07**	0.10**	0.10**	0.06	0.10*	0.05	0.16***
	(0.04)	(0.04)	(0.03)	(0.05)	(0.05)	(0.04)	(0.06)	(0.04)	(0.05)
Population (log)		-2.04***			-1.21**		-1.22**		-1.00*
		(0.51)			(0.49)		(0.55)		(0.53)
Median income			-0.00***		-0.00***		-0.00***		-0.00***
			(0.00)		(0.00)		(0.00)		(0.00)
Single bidding ratio$_{t-1}$								-0.00	-0.03
								(0.04)	(0.04)
Constant	10.11***	28.11***	27.83***	6.16**	33.02***	10.26***	40.02***	11.22***	33.50***
	(1.41)	(5.85)	(4.72)	(2.59)	(7.40)	(1.48)	(6.63)	(1.76)	(7.54)
Observations	1,898	1,898	1,898	1,898	1,898	1,898	1,898	1,574	1,574
Municipalities	288	288	288	288	288	288	288	284	284
Municipal FE	NO	NO	NO	NO	NO	NO	NO	NO	NO
Year FE	NO	YES	YES	YES	YES	YES	YES	YES	YES
Party FE	NO	NO	NO	YES	YES	NO	YES	NO	YES

*Note. Standard errors, clustered at the municipal level, in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

TABLE A8. SINGLE BIDDING RATIO AND ONE-PARTY RULE,

MUNICIPAL-YEARS WITH LESS THAN THREE TENDERS EXCLUDED.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
			Static				AR1		LDV	
One-party rule	2.19***	2.15***	2.15***	2.10***	1.81**	1.90**	2.29***	1.88**	2.26***	1.96**
	(0.80)	(0.80)	(0.77)	(0.78)	(0.88)	(0.80)	(0.87)	(0.85)	(0.84)	(0.82)
Population (log)		-1.52***				-1.18***		-1.25***		-1.11***
		(0.41)				(0.40)		(0.41)		(0.38)
Area (log)			1.62***			1.36***		1.39***		1.12***
			(0.31)			(0.35)		(0.31)		(0.36)
Median income				-0.00***		-0.00		-0.00		-0.00*
				(0.00)		(0.00)		(0.00)		(0.00)
Single bidding ratio$_{t-1}$									0.05	0.02
									(0.03)	(0.03)
Constant	11.68***	23.02***	-2.64	24.06***	8.57***	16.88***	11.67***	24.26***	11.74***	23.07***
	(0.42)	(4.43)	(1.96)	(3.64)	(0.99)	(5.68)	(0.42)	(5.82)	(0.51)	(5.89)
Observations	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,460	1,460
Municipalities	276	276	276	276	276	276	276	276	276	276
Municipal FE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Year FE	NO	YES	YES	YES	YES	YES	NO	YES	NO	YES
Party FE	NO	NO	NO	NO	YES	YES	NO	YES	NO	YES

*Note. Standard errors, clustered at the municipal level, in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

TABLE A9. SINGLE BIDDING RATIO AND NEW RULING PARTY,

MUNICIPAL-YEARS WITH LESS THAN THREE TENDERS EXCLUDED.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Static			AR1		LDV	
New ruling party	-0.96	-0.68	-0.72	-0.97	-0.96	-0.47	-0.71	-1.04	-1.22
	(0.75)	(0.77)	(0.76)	(0.84)	(0.84)	(0.98)	(1.05)	(0.92)	(1.05)
Population (log)		5.36			12.99		-1.79		21.66
		(22.56)			(23.77)		(23.85)		(30.56)
Median income			-0.00		-0.00		-0.00		-0.00
			(0.00)		(0.00)		(0.00)		(0.00)
Single bidding ratio$_{t-1}$								-0.11**	-0.11**
								(0.04)	(0.04)
Constant	12.53***	-44.74	25.48	9.29***	-97.77	13.20***	-45.32	14.51***	-193.2
	(0.21)	(224.9)	(23.62)	(1.18)	(228.8)	(0.36)	(28.41)	(0.60)	(299.0)
Observations	1,697	1,697	1,697	1,697	1,697	1,421	1,421	1,460	1,460
R-squared	0.00	0.04	0.04	0.04	0.04			0.02	0.04
Municipalities	276	276	276	276	276	269	269	276	276
Municipal FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	NO	YES	YES	YES	YES	NO	YES	NO	YES
Party FE	NO	NO	NO	YES	YES	NO	YES	NO	YES

*Note. Standard errors, clustered at the municipal level, in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

FIGURE A1. MAP OF SWEDISH MUNICIPALITIES, BY NUTS3-REGION.

TABLE A10. SINGLE BIDDING RATIO AND ONE-PARTY RULE,

SE3-MUNICIPALITIES EXCLUDED.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
				Static				AR1		LDV
One-party rule	2.62*	2.69*	3.35**	2.94**	2.46	2.60*	2.95**	2.77**	0.88	0.71
	(1.50)	(1.42)	(1.46)	(1.38)	(1.53)	(1.47)	(1.36)	(1.41)	(1.32)	(1.39)
Population (log)		-1.38**				-0.85		-0.84		-0.81
		(0.59)				(0.55)		(0.64)		(0.70)
Area (log)			0.86**			0.17		0.16		-0.09
			(0.41)			(0.45)		(0.63)		(0.44)
Median income				-0.00***		-0.00***		-0.00**		-0.00***
				(0.00)		(0.00)		(0.00)		(0.00)
Single bidding ratio$_{t-1}$									0.01	-0.01
									(0.05)	(0.05)
Constant	11.20***	22.64***	3.60	25.12***	9.39***	31.37***	11.10***	37.49***	11.84***	36.23***
	(0.55)	(6.57)	(2.88)	(4.58)	(1.65)	(9.03)	(0.59)	(9.30)	(0.77)	(10.03)
Observations	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,123	1,123
Municipalities	204	204	204	204	204	204	204	204	202	202
Municipal FE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Year FE	NO	YES	YES	YES	YES	YES	NO	YES	NO	YES
Party FE	NO	NO	NO	NO	YES	YES	NO	YES	NO	YES

*Note. Standard errors, clustered at the municipal level, in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

TABLE A11. SINGLE BIDDING RATIO AND NEW RULING PARTY,

SE3-MUNICIPALITIES EXCLUDED.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Static			AR1		LDV	
New ruling party	-1.87**	-1.60	-1.72*	-2.57**	-2.33**	-1.39	-1.98	-1.33	-1.79
	(0.92)	(0.98)	(0.95)	(1.17)	(1.16)	(1.19)	(1.29)	(1.05)	(1.30)
Population (log)		42.55			40.14		64.25*		26.54
		(31.00)			(29.67)		(35.79)		(34.77)
Median income			0.00		0.00		0.00		0.00
			(0.00)		(0.00)		(0.00)		(0.00)
Single bidding ratio$_{t-1}$								-0.10*	-0.11**
								(0.05)	(0.05)
Constant	12.17***	-416.8	-41.09	11.98***	-422.0	12.53***	-4.75	13.59***	-294.8
	(0.28)	(310.4)	(40.68)	(2.23)	(300.7)	(0.45)	(37.29)	(0.70)	(343.8)
Observations	1,350	1,350	1,350	1,350	1,350	1,146	1,146	1,123	1,123
R-squared	0.00	0.02	0.02	0.03	0.03			0.01	0.04
Municipalities	204	204	204	204	204	203	203	202	202
Municipal FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	NO	YES	YES	YES	YES	NO	YES	NO	YES
Party FE	NO	NO	NO	YES	YES	NO	YES	NO	YES

*Note. Standard errors, clustered at the municipal level, in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

TABLE A12. SINGLE BIDDING RATIO AND ONE-PARTY RULE,
SE3-MUNICIPALITIES EXCLUDED, CONTRACT LEVEL.

	Raw comparison	Propensity score matching
Turnover	11.113	8.482
One-party rule	11.621	11.621
Difference	*0.507*	*3.138***
95% Confidence interval: lower bound	-0.508	0.610
95% Confidence interval: upper bound	1.523	5.667
N	44,014	44,014

TABLE A13. SINGLE BIDDING RATIO AND NEW RULING PARTY, SE3-MUNICIPALITIES EXCLUDED, CONTRACT LEVEL

	Raw comparison	Propensity score matching
Returning ruling party	10.893	11.692
New ruling party	11.372	11.372
Difference	*0.480*	*-0.320*
95% Confidence interval: lower bound	-0.193	-1.136
95% Confidence interval: upper bound	1.152	0.496
N	23,480	23,480

TABLE A14. SINGLE BIDDING RATIO AND ONE-PARTY RULE IN SMALL AND LARGE MUNICIPALITIES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	Small municipalities										Large municipalities									
	Static					AR1			LDV		Static						AR1		LDV	
One-party rule	3.54**	3.67**	3.84**	3.19**	3.15*	3.08*	3.79**	3.26*	2.91*	2.68	1.90*	1.92*	1.80*	2.11**	1.42	1.35	1.86**	0.64	1.08	0.34
	(1.68)	(1.63)	(1.69)	(1.62)	(1.77)	(1.62)	(1.89)	(1.91)	(1.68)	(1.75)	(1.05)	(1.02)	(0.99)	(1.05)	(1.15)	(1.03)	(0.87)	(0.84)	(0.91)	(0.91)
Population (log)		-7.27***				-6.04***		-5.96***		-6.40**		-1.32***				-1.30***		-1.38***		-1.27***
		(2.15)				(2.20)		(2.12)		(2.74)		(0.43)				(0.44)		(0.46)		(0.38)
Area (log)			1.46**			0.02		0.08		-0.22			1.21***			1.17***		1.31***		1.03***
			(0.70)			(0.84)		(0.80)		(0.92)			(0.29)			(0.32)		(0.29)		(0.28)
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)		(0.00)		(0.00)
Single bidding ratio$_{t-1}$									-0.02	-0.06									0.19***	0.14***
									(0.04)	(0.04)									(0.05)	(0.04)
Constant	12.69***	77.35***	1.58	42.60***	11.26***	87.58***	12.63***	92.23***	13.96***	97.03***	10.96***	21.14***	-0.55	16.79***	8.21***	14.80**	10.96***	11.63*	9.64***	17.79***
	(1.03)	(20.05)	(5.09)	(9.52)	(2.55)	(26.20)	(1.02)	(22.92)	(1.22)	(31.37)	(0.34)	(4.75)	(1.96)	(3.98)	(0.81)	(6.52)	(0.40)	(6.33)	(0.55)	(5.80)
Observations	903	903	903	903	903	903	903	903	724	724	998	998	998	998	998	998	998	998	852	852
Municipalities	144	144	144	144	144	144	144	144	140	140	144	144	144	144	144	144	144	144	144	144
Municipal FE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Year FE	NO	YES	YES	YES	YES	YES	NO	YES	NO	YES	NO	YES	YES	YES	YES	YES	NO	YES	NO	YES
Party FE	NO	NO	NO	NO	YES	YES	NO	YES	NO	YES	NO	NO	NO	NO	YES	YES	NO	YES	NO	YES

*Note. Small municipalities = below median minimum population (15,532) during the sample period (2009-15); large municipalities = above median. Standard errors, clustered at the municipal level, in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

TABLE A15. SINGLE BIDDING RATIO AND NEW RULING PARTY IN SMALL AND LARGE MUNICIPALITIES.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Small municipalities									Large municipalities								
	Static				AR1			LDV		Static				AR1			LDV	
New ruling party	-4.58***	-4.73***	-4.66***	-5.06***	-4.99***	-5.13**	-4.87**	-5.66***	-5.39**	0.12	0.80	0.84	0.89	0.93	0.61	0.81	0.56	0.99
	(1.51)	(1.53)	(1.53)	(1.65)	(1.66)	(2.26)	(2.39)	(1.94)	(2.14)	(0.79)	(0.80)	(0.78)	(0.84)	(0.83)	(0.97)	(1.02)	(0.90)	(1.04)
Population (log)		14.74			14.08		-9.40		28.18		-4.65			7.04		10.69		11.43
		(40.04)			(41.21)		(10.16)		(51.96)		(20.65)			(21.48)		(23.35)		(29.84)
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)		(0.00)		(0.00)
Single bidding ratio$_{t-1}$								-0.17***	-0.17***								-0.11**	-0.14***
								(0.04)	(0.04)								(0.05)	(0.04)
Constant	15.1***	-120.4	-24.4	15.6***	-137.1	15.7***	93.3*	18.4***	-283.1	11.3***	56.5	58.9***	7.33***	-14.9	12.0***	-151.4**	13.0***	-50.0
	(0.43)	(364.9)	(59.85)	(2.98)	(370.1)	(0.87)	(52.98)	(0.85)	(470.9)	(0.23)	(218.2)	(22.24)	(1.06)	(223.2)	(0.35)	(61.34)	(0.63)	(311.4)
Observations	903	903	903	903	903	759	759	724	724	998	998	998	998	998	854	854	852	852
R-squared	0.01	0.02	0.02	0.03	0.03			0.04	0.08	0.00	0.07	0.08	0.07	0.08			0.01	0.05
Municipalities	144	144	144	144	144	143	143	140	140	144	144	144	144	144	144	144	144	144
Municipal FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	NO	YES	YES	YES	YES	NO	YES	NO	YES	NO	YES	YES	YES	YES	NO	YES	NO	YES
Party FE	NO	NO	NO	YES	YES	NO	YES	NO	YES	NO	NO	NO	YES	YES	NO	YES	NO	YES

*Note. Small municipalities = below median minimum population (15,532) during the sample period (2009-15); large municipalities = above median. Standard errors, clustered at the municipal level, in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

TABLE A16. ODDS OF NO SINGLE BIDDING AND ONE-PARTY RULE.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Municipality-clustered SEs						Random Effects	
One-party rule	0.81	0.58***	0.78	0.72*	0.70*	0.56***	0.87	0.52**
	(0.15)	(0.11)	(0.15)	(0.14)	(0.14)	(0.11)	(0.24)	(0.13)
Population (log)		0.28***				0.26***		0.16***
		(0.04)				(0.04)		(0.03)
Area (log)			0.95			0.80***		0.73***
			(0.06)			(0.06)		(0.07)
Median income				1.00***		1.00		1.00
				(0.00)		(0.00)		(0.00)
Constant	0.43***	256,027***	1.37	26.58***	1.08	1,515,181***	0.29***	297,344,715***
	(0.04)	(321,883)	(0.58)	(26.99)	(0.19)	(2,606,607)	(0.04)	(620290202)
Observations	1,901	1,901	1,901	1,901	1,901	1,901	1,901	1,901
Municipalities	288	288	288	288	288	288	288	288
Municipal FE	NO	NO	NO	NO	NO	NO	NO	NO
Year FE	NO	YES	YES	YES	YES	YES	NO	YES
Party FE	NO	NO	NO	NO	YES	YES	NO	YES

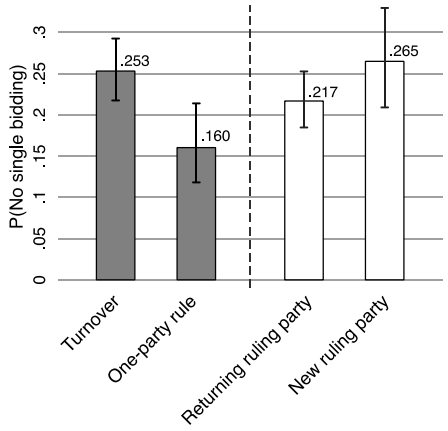
*Note. Dependent variable No single bidding in municipality during year. Odds ratios displayed. Estimations in columns 1-6 using logistic regression with SEs clustered at the municipal level; estimations in columns 7-8 using random effects-logistical regression (xtlogit with option re in Stata 14). *** p<0.01, ** p<0.05, * p<0.1.*

TABLE A17. ODDS OF NO SINGLE BIDDING AND NEW RULING PARTY.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Municipality-clustered SEs						Fixed Effects	
New ruling party	1.26	1.23	1.24	1.18	1.23	1.30	1.48*	1.46*
	(0.18)	(0.21)	(0.19)	(0.18)	(0.18)	(0.23)	(0.30)	(0.33)
Population (log)		0.29***				0.26***		0.00**
		(0.03)				(0.04)		(0.00)
Area (log)			0.94			0.80***		
			(0.06)			(0.06)		
Median income				1.00***		1.00		1.00
				(0.00)		(0.00)		(0.00)
Constant	0.38***	143,420***	1.29	18.91***	0.88	787,183***		
	(0.04)	-166,129	(0.55)	(18.89)	(0.14)	-1,342,717		
Observations	1,901	1,901	1,901	1,901	1,901	1,901	1,171	1,171
Municipalities	288	288	288	288	288	288	175	175
Municipal FE	NO	NO	NO	NO	NO	NO	YES	YES
Year FE	NO	YES	YES	YES	YES	YES	NO	YES
Party FE	NO	NO	NO	NO	YES	YES	NO	YES

*Note. Dependent variable No single bidding in municipality during year. Odds ratios displayed. Estimations in columns 1-6 using logistic regression with SEs clustered at the municipal level; estimations in columns 7-8 using conditional fixed effects-logistical regression (xtlogit with option fe in Stata 14), resulting in the exclusion of municipalities without variation in the dependent variable. *** p<0.01, ** p<0.05, * p<0.1.*

FIGURE A2. POLITICAL ENTRENCHMENT AND THE PROBABILITY OF SINGLE BIDDING OCCURRING.



Note. Results represented by grey bars derived from column 6, table A15. Results represented by white bars derived from column 6, table A16. Capped lines display 95% confidence intervals using standard errors clustered at the municipal level.

TABLE A18. DESCRIPTIVE STATISTICS FOR VARIABLES USED IN ANALYSIS OF MECHANISMS.

	n	mean	sd	min	max
Single bidding ratio	275	12.21	7.74	0	41.7
One-party rule	275	0.23			
New ruling party	275	0.25			
Population (log)	275	9.88	0.95	7.79	13.7
Area (log)	275	6.49	1.27	2.16	9.87
Median income	275	238,516	24,274	192,405	331,482
Audit chair from majority	273*	0.17	0.38		
Media influence	275	4.60	0.87	1.93	6.71
Bureaucratic human capital	275	45.3	6.99	31.6	77.0
Local winner ratio	275	11.6	9.78	0	50
Ruling party (% of cases)					
Socialdemokraterna	275	46.6			
Moderaterna	275	34.2			
Centerpartiet	275	14.9			
Kristdemokraterna	275	1.45			
Folkpartiet	275	1.82			
Vänsterpartiet	275	0.73			
Other party	275	0.36			

**In two instances, Valdemarsvik and Orust municipalities, intra-term-period power shifts during the 2011-14 term preclude from identifying whether the audit chair is a representative of the majority.*

TABLE A19. POLITICAL ENTRENCHMENT, AUDIT CONTROL,

AND SINGLE BIDDING RATIO.

	(1)	(2)	(3)	(4)	(5)	(6)
	DV: Audit chair from majority				DV: Single bidding ratio	
One-party rule	2.22**	2.53**				
	(0.77)	(1.01)				
New ruling party			0.39**	0.36**		
			(0.18)	(0.17)		
Audit chair from majority					1.38	1.27
					(1.29)	(1.22)
Population (log)		1.16		1.09		-1.08**
		(0.28)		(0.24)		(0.52)
Area (log)		0.99		1.02		0.82*
		(0.15)		(0.15)		(0.47)
Median income		1.00		1.00		-0.00
		(0.00)		(0.00)		(0.00)
Constant	0.17***	0.36	0.25***	0.88	11.96***	25.77***
	(0.03)	(0.97)	(0.04)	(2.37)	(0.51)	(9.47)
Observations	273	273	273	273	273	273
R-squared					0.00	0.08
Party FE	NO	YES	NO	YES	NO	YES

*Note. Columns 1-4 display odds ratios, columns 5-6 regression coefficients. To avoid excluding cases for the estimations with Party FEs in the logistic regression framework, Party FEs are sorted into Socialdemokraterna, Moderaterna, Centerpartiet, and all other parties into one category. This alteration does not affect the main results. Data averaged for the 2011-14 term period. 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)	(5)	(6)
	DV: Media influence				DV: Single bidding ratio	
One-party rule	-0.59***	-0.41***				
	(0.12)	(0.13)				
New ruling party			0.16	0.18		
			(0.12)	(0.12)		
Media influence					-1.20**	-1.18**
					(0.51)	(0.55)
Population (log)		0.07		0.09		-1.04*
		(0.05)		(0.06)		(0.54)
Area (log)		-0.02		-0.02		0.83*
		(0.04)		(0.05)		(0.48)
Median income		-0.00**		-0.00**		-0.00
		(0.00)		(0.00)		(0.00)
Local press coverage		0.15		0.16		1.03
		(0.28)		(0.29)		(2.79)
Constant	4.73***	4.99***	4.56***	4.65***	17.73***	30.97***
	(0.06)	(0.79)	(0.06)	(0.83)	(2.49)	(10.15)
Observations	275	275	275	275	275	275
R-squared	0.08	0.20	0.01	0.18	0.02	0.10
Party FE	NO	YES	NO	YES	NO	YES

*Note. 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)	(5)	(6)
	DV: Bureaucratic human capital				DV: Single bidding ratio	
One-party rule	-3.16***	-0.83*				
	(0.96)	(0.45)				
New ruling party			-2.19***	0.34		
			(0.84)	(0.44)		
Bureaucratic human capital					-0.34***	-0.35***
					(0.07)	(0.13)
Population (log)		2.57***		2.57***		-0.19
		(0.31)		(0.31)		(0.72)
Area (log)		-1.35***		-1.34***		0.38
		(0.20)		(0.20)		(0.50)
Median income		0.00***		0.00***		-0.00
		(0.00)		(0.00)		(0.00)
Population human capital		0.54***		0.56***		0.17
		(0.09)		(0.09)		(0.15)
Constant	45.99***	13.64***	45.82***	13.33***	27.40***	29.91***
	(0.48)	(4.10)	(0.51)	(4.09)	(3.32)	(11.04)
Observations	275	275	275	275	275	275
R-squared	0.04	0.75	0.02	0.74	0.09	0.11
Party FE	NO	YES	NO	YES	NO	YES

*Note. 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)	(5)	(6)
	DV: Local winner ratio				DV: Single bidding ratio	
One-party rule	1.51	0.90				
	(1.36)	(1.33)				
New ruling party			-0.59	-1.73		
			(1.33)	(1.27)		
Local winner ratio					0.10**	0.08
					(0.05)	(0.07)
Population (log)		2.68***		2.60***		-1.35**
		(0.78)		(0.78)		(0.59)
Area (log)		2.53***		2.60***		0.89*
		(0.56)		(0.57)		(0.51)
Median income		-0.00		-0.00		-0.00*
		(0.00)		(0.00)		(0.00)
Constant	11.22***	-23.97**	11.71***	-22.34**	11.15***	28.50***
	(0.65)	(10.18)	(0.65)	(10.16)	(0.74)	(9.91)
Observations	264	264	264	264	264	264
R-squared	0.00	0.22	0.00	0.23	0.02	0.12
Party FE	NO	YES	NO	YES	NO	YES

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