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# THE ELECTORAL CONSEQUENCES OF INSTITUTIONAL FAILURE

A comparative study of audits, rulers, and voters in Swedish municipalities

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## ABSTRACT

Electoral accountability is widely considered an essential element for ascertaining institutional quality. Nevertheless, and contrary to this notion, a growing body of empirical research finds weak or limited support for the notion that voters actually punish political corruption, a central but partial aspect of institutional quality. Instead, I introduce the concept of institutional performance voting, capturing institutional quality as a whole. Using a novel dataset on performance audit reports in Swedish municipalities, I find that voters punish mayoral parties responsible for institutional dysfunction.

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## Introduction

Do voters punish politicians responsible for bad institutions? Considering a plethora of findings indicating that incumbents serve at the mercy of a number of factors partially or wholly out of their control, from the state of the market to the weather, and contingent on the performance of sports teams as well as shark attacks (Achen and Bartels 2003 [but cf. Fowler and Hall, 2018]; Healy, Malhotra, and Mo 2010; Gasper and Reeves 2011; Miller 2013), it stands to reason that they should also be evaluated on the actual performance of the governments they run, and the institutions they are tasked with upholding. Nevertheless, existing research has so far only provided partial answers to this critical question. Apart from the literature on economic voting, which only indirectly deals with institutional performance (Kramer 1983; see Healy and Malhotra 2013 for a recent review), the closest relevant body of work consists of an emerging literature showing that corruption scandals moderately and contingently diminish politicians' electoral prospects (Welch and Hibbing 1997; Fackler and Lin 1995; Ferraz and Finan 2008; Chang, Golden, and Hill 2010; Costas-Pérez, Solé-Ollé, and Sorribas-Navarro 2012; Bågenholm 2013; de Vries and Solaz 2017; Klačnjak 2017). However, we should keep in mind that political corruption is only one out of a handful of ways that institutional quality may falter, a list that also includes low effectiveness, partial exercise of power, and low transparency (Adserà, Boix, and Payne 2003; Langbein and Knack 2010; Agnafors 2013; Rothstein and Varraich 2017). Furthermore, out of these aspects, corruption is—apart from its signaling value—frequently one of limited direct substantive relevance to voters' welfare compared to, for example, the effectiveness of public goods provision.<sup>1</sup>

To this end, I herein advance the argument for *institutional performance voting*—voting on institutional quality in the aggregate—as a complementary, and often more useful concept for the study of electoral accountability than economic- or corruption voting. Using new and unique data covering formal critique launched through performance audit reports in Swedish municipalities between 2002 and 2015, I show that mayoral parties indeed suffer electorally from institutional dysfunction. As such, these findings inform research on corruption voting, as well as the more general literature on retrospective voting within which it resides.

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## Electoral Punishment for Bad Institutions

Considering its real-world importance, voters should be highly incentivized to sanction low institutional quality.<sup>2</sup> A growing literature has attested to the importance of good institutions for many facets of human welfare; having politicians and public servants who operate in a competent, honest, and effective manner within a political and administrative framework that supports these virtues has proven essential, not only for ascertaining that public goods are appropriately delivered to the citizenry (Helliwell and Huang 2008; Holmberg, Rothstein, and Nasiritousi 2009; Ott 2010), but also through bolstering the type of macroeconomic indicators in focus within the economic voting literature (Chong and Calderon 2000; Acemoglu, Johnson, and Robinson 2001; Rodrik, Subramanian, and Trebbi 2004; Sobel 2008; Nistotskaya, Charron, and Lapuente 2014).

In light of the observed importance of high-quality institutions, there is a rather surprising lack of evidence for the highly reasonable assumption that democratically elected politicians and parties who fail to ascertain such institutions are punished at the voting booth. This absence can, to a large extent, be explained by well-known difficulties in isolating politicians' performance from the greater political, economic, and social context in order to retrospectively exert accountability. Two interrelated fields have, however, advanced knowledge on the matter, respectively focusing on the economy and corruption.

### The vast and the spurious: Economic voting

The bulk of retrospective voting models tend to employ indicators suggestive of incumbents' performance by leveraging the state of the economy (Fiorina 1981; Powell and Witten 1993; Lewis-Beck and Stegmaier 2000; Healy and Malhotra 2013; Healy, Persson, and Snowberg 2017). Indeed, any government seeking reelection is incentivized to direct a considerable share of its efforts toward maintaining and improving the state of the economy; in the words of Lewis-Beck and Stegmaier (2000, 183), "good times keep parties in office, bad times cast them out."

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<sup>2</sup> A simultaneously precise and universally accepted definition of institutional quality does not exist, and given its conceptual breadth, is unlikely to ever calcify. Indicative of the concept's scope, it tends to go under many names, commonly through a combination of *good* or *quality* with *governance*, *government*, or *institutions*. Some lowest common denominators do, however, exist within the literature: Both more abstract (Agnafors 2013; Rothstein and Teorell 2008) and concrete (Adserà, Boix, and Payne 2003) definitions claim a certain set of properties to be foundational for the institutions of a polity to be considered "good," principally, an absence of corruption, the effective realization of policies, impartial conduct toward citizens, protection of property rights, as well as a certain measure of transparency.

Although certainly a salient indicator for voters' decision-making processes, strictly economy-centered models nevertheless generally fail to explicitly isolate and capture the actual performance of politicians and, importantly, the administrative framework over which they preside and the public goods they provide. Clearly, governing well involves much more than just keeping stock markets high, inflation low, and people working. Furthermore, although the state of the economy is certainly one of the most central parts of any government's purview, it generally only has a marginal influence over macroeconomic performance and individuals' economic welfare (see Kramer 1983), a circumstance accentuated with increasing globalization (Hellwig and Samuels 2007). Rather, as Maravall and Sánchez-Cuenca (2008, 5) argue, the economic bias in the retrospective voting literature can be explained "mainly because economic performance is an easy variable to assess."

### **Valid but narrow: Corruption voting**

A more recent strand of research focuses on non-economic performance voting that explicitly tackles institutional quality, although with few exceptions (e.g., Boyne et al. 2007; Burlacu 2014), the focus herein lies on the more specific problem of political corruption scandals. In particular, an emerging literature has found modest negative effects of accusations of, and evidence for, incumbents' corruption on their subsequent electoral success, often contingent on media coverage (Ferraz and Finan 2008; Chang, Golden, and Hill 2010; Costas-Pérez, Solé-Ollé, and Sorribas-Navarro 2012). This scandal-focused literature has undoubtedly advanced the state of knowledge of how actual institutional dysfunction is—or is not—translated into vote loss. Indeed, political corruption is in itself morally reprehensible, provoking, and arguably a highly valid reason not to vote for those engaging in it.

Nevertheless, while an absence of corruption is certainly a central pillar of institutional quality, it is only one of several key aspects (Agnafors 2013; Rothstein and Varraich 2017). Crucially, it is also often one of fairly limited interest to the self-interested voter. On the one hand, many types of corruption may have a direct negative impact on the welfare of the electorate, such as instances of politicians stealing or embezzling large amounts from the public purse. On the other hand, real-life corruption scandals are often more complex and can involve illicit activities that only marginally impair voters' welfare. In some cases, corruption may even bring the electorate short-term benefits, thus creating unclear incentives for the electorate (Fernández-Vázquez, Barberá, and Rivero 2016). Rather, the principal relevance of a corruption scandal to voters is most likely indirect, as a signal of

other undesirable traits of politicians' performance and ability that would be more relevant to their own well-being (and not necessarily a reliable one; see Weitz-Shapiro and Winters 2016).

Additionally, through its focus on politicians, often at the highest levels, the corruption voting literature tends to focus on grand corruption. Accordingly, this approach runs the risk of advancing an elite bias, which is of concern considering that voters are more likely to feel the brunt of the petty type of corruption more closely associated with bureaucratic misconduct at lower levels (Rose-Ackerman and Palifka 2016, 11). Indicative of the potential gains in looking beyond grand corruption, Winters and Weitz-Shapiro (2016) provide evidence suggestive of the electoral importance of bureaucratic corruption, finding that voters' punishment of mayors is only marginally smaller when corruption involves subordinate bureaucrats than when limited to the mayors themselves.

Accordingly, although both economic conditions and corruption scandals are plausible factors to study when attempting to understand retrospective voting, each is limited in its own way, the former focusing on factors outside of politicians' control, while the latter is conceptualized more narrowly than the now considerable literature on institutional quality would prescribe.

### **A Way Forward: Institutional Performance Voting**

In order to advance the field of retrospective voting, I propose the concept of *institutional performance voting*, that is, voting on institutional quality as a whole, conceived as corruption, impartiality, effectiveness, and transparency, throughout the public sector. This concept undoubtedly relates closely to corruption voting—after all, it includes it—but is broader and arguably more useful in terms of capturing the full range of institutional deficiencies for which incumbents are responsible.

Indeed, a failing institutional framework is something voters should be even more incentivized to act upon than “merely” the corrupt acts of politicians. Specifically, compared to corruption scandals—generally mediated by and dependent upon media scrutiny, institutional quality is felt and observable to voters through a greater number of channels, including media coverage, but also through personal experiences with the effectiveness and fairness of public service delivery (Clarke et al. 2009), the presence of unnecessary red tape, and even pure “government blunders” (Jennings, Lodge, and Ryan 2018).

Furthermore, following Burlacu (2014), I argue that experience with low institutional performance is likely a more plausible heuristic for voters on which to evaluate their specific incumbents than general perceptions of corruption, which tend to be attributed to the political system in general.

As noted above, institutional quality is also of utmost importance for economic well-being (Chong and Calderon 2000; Acemoglu, Johnson, and Robinson 2001; Rodrik, Subramanian, and Trebbi 2004; Sobel 2008; Nistotskaya, Charron, and Lapuente 2014), causing the concept to relate to the field of economic voting as well.

In sum, both of the relevant and established literatures focusing on retrospective voting, respectively based on the economy and corruption, stop short of fully capturing the actual performance of politicians; just as dire economic straits do not automatically make leaders “rascals” (Stokes 1963: 373), simply abstaining from engaging in corrupt activities is not sufficient grounds to conclude that such leaders are not worthy of being thrown out. Instead, institutional quality, considered in the aggregate, is likely a more plausible and salient means of evaluating leaders, as it relates not only to both corruption scandals and the state of the economy, but also critically conditions citizens’ experience with the public sector and the way in which public goods are actually delivered to them.

## **Swedish Municipalities as a Contrasting Case of Institutional Performance Voting**

The bulk of single-country studies of corruption voting have been conducted on democracies with comparatively poor institutions (e.g., Ferraz and Finan 2008; Chang, Golden, and Hill 2010; Costas Pérez, Solé-Ollé, and Sorribas-Navarro 2012; Chong et al. 2015; Klačnja 2015).<sup>3</sup> By default, generalizability is a recurring issue in these works, as it is impossible to find a truly “representative” democracy. Furthermore, when it comes to institutional performance voting, Sweden is especially far from a representative case, due to its high levels of electoral turnout (International Institute for Democracy and Electoral Assistance 2016), accountability, and its consistent ranking as one of the world’s least corrupt and most effective states (Transparency International 2017; World Bank Group 2018).

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<sup>3</sup> The main exception is a considerable body of research on corruption voting in the U.S., showing similar results as for less mature democracies (Fackler and Lin 1995; Welch and Hibbing 1997; Klačnja 2017). Although the U.S. displays a relatively high level of institutional quality, its scores on conventional indicators are considerably less extreme than Sweden (Transparency International 2017; World Bank Group 2018). Furthermore, the U.S. and Sweden diverge on most relevant political and institutional indicators (e.g. electoral system, size, and welfare regime).

Indeed, the local Swedish setting may appear as a least-likely case of institutional performance voting at first glance. When investigating the impact of performance evaluations on support for local governments in the United Kingdom, Boyne et al. (2009) argue that their case is a difficult one for general performance voting, citing the importance of party labels and the second-order nature of local elections. Both factors are certainly present in Swedish municipalities, especially since the role of parties in the Swedish electoral system is even more pronounced than in the UK (Söderlund 2016, 328). Furthermore, Ecker, Glinitzer, and Meyer (2016) find that corruption voting is more pronounced in contexts where such problems are severe, while Burlacu (2014) notes that voters in poor democracies reward institutional improvements more than voters in rich ones.

Nevertheless, recent works call for a nuancing of this picture. First, the presence of a virtuous institutional equilibrium in which good government is the norm, supported by a free press, is indicative that Swedish voters should be aware of institutional dysfunction when it is present. Having good reason to expect incumbents' replacements to make the necessary improvements, it should also make voters prepared to punish politicians who fail to deliver good institutions (de Sousa and Moriconi 2013, 480). In support of this notion, experimental evidence finds Swedish voters to be more unequivocally prone to punish corruption than voters in more corrupt democracies (Klašnja and Tucker 2013; see also Chong et al. 2015). Second, in many institutionally weak democracies, clientelism and vote buying are foundational electoral linkage strategies—being both a clear case of institutional dysfunction and a suppressing factor for voters' tendency to punish the very same phenomenon (Fackler and Lin 1995; Kitschelt 2000; Wantchekon 2003; Stokes 2005; Manzetti and Wilson 2007). Third, contrasting Boyne et al.'s (2009) assertions, recent research (Schleiter and Voznaya 2016) suggests that party labels rather help voters to exercise retrospective accountability by facilitating responsibility attribution and coordination around a challenger. In line with this argument, Söderlund (2016) shows that electoral systems' candidate-centrism weakly hampers the extent of retrospective performance voting. Finally, the second order nature of local elections is highly contestable (de Sousa and Moriconi 2013), especially in a context like Swedish municipalities (Karlsson and Gilljam 2016) considering their importance as public service providers, with corresponding tax-raising competencies.<sup>4</sup>

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<sup>4</sup> Sweden's 290 municipalities have an extensive responsibility for public goods provision, including education, child-, social-, and elderly care, employing a majority of public sector employees (Statistics Sweden 2014). To finance these services, municipalities raise a large share of the total tax burden, mainly through a local income tax that accounts for over a third of the country's total tax receipts, or 15% of Swedish GDP (Swedish Tax Agency 2015).

In sum, both the sheer number of factors suggested to condition retrospective voting, along with the lack of agreement regarding their respective potency, or even direction of impact, makes it difficult to consider any given case as more- or less likely for the phenomenon to be present. Rather, the relevance of the Swedish case—which recent evidence indicates follows the mold at least in the realm economic voting (Healy, Persson, and Snowberg 2017)—to the question of institutional performance voting is as a clear contrasting case to the poor and low performing democracies, of which we currently know most regarding voting on the closely related topic of corruption voting.

### **Audit Reports as Indicators of Institutional Dysfunction**

As noted above, corruption scandals is only one of several aspects of institutional failure an electorate should be incentivized to punish, and often they are not even the most salient one. This focus is nevertheless understandable since the matter of empirically measuring institutional quality is almost universally considered problematic, considering its conceptual breadth and often clandestine symptoms. In lieu of hard or comprehensive measures, quantitative and comparative studies have had to rely extensively on expert assessments of partial components, such as countries' perceived level of corruption, bureaucratic quality, and protection of property rights (Heritage Foundation 2017; PRS Group 2017; Transparency International 2017; World Bank Group 2018). Furthermore, recent and increasingly vocal critique regarding the “whole nation bias” of such indicators emphasizes the need to complement cross-country studies with subnational analysis (Charron, Lapuente, and Rothstein 2013; Snyder 2001), as well as to include a temporal aspect (Bäck and Hadenius 2008).

To meet these demands, my strategy for capturing institutional quality employs simultaneously hard and holistic data, which varies both sub-nationally and over time: municipal performance audit reports, a strategy similar to that of Ferraz and Finan (2008, 704), Boyne et al. (2009), and Chong et al. (2015). As Pollitt and co-authors (1999, i) note, the performance audit is devised as a crucial supervisor of a polity's institutional performance, offering “a means by which the citizens of democratic states may be offered independent reassurance as to the economy, efficiency, effectiveness, and good management of the programmes pursued by their governments.” Accordingly, the very purpose of such reports is to evaluate factors that closely approximate most conventional definitions of institutional quality, as discussed above.

In Sweden, the performance of municipal government is scrutinized regularly and locally through municipal audit committees. Deriving from chapter nine in the Swedish Local Government Act (Svensk Författningssamling 1991:900), and the guidelines set up in the steering document Code of Audit Practice in Local Government, issued by the Swedish Association of Local Assemblies and Regions (SALAR 2014), the audit committee in each municipality is tasked with annually evaluating whether the municipality's executive board (equivalent to the municipal government), or the various committees underneath it, has committed one or several of eight distinct types of failures:

1. inadequate goal achievement, failure to observe the objectives and guidelines set by the assembly or in regulation;
2. deficient management, follow-up and control;
3. damage to the public trust or other intangible injury;
4. financial injury;
5. unauthorized decision making;
6. operations not conforming to law, criminal conduct;
7. insufficient preparation of decisions;
8. deficient accounting.

Such failures result either in a formal remark (less severe) or in a dissuasion for the municipal assembly (the municipal parliament) to grant discharge for the members of the criticized body (more severe).

Mirroring the diversity inherent to the theoretical concept of institutional quality itself, the list above contains a wide range of possible deficiencies relating to its main components, including the commonly studied problem of corruption, which is directly highlighted in (6) and indirectly through (4), (5), and (8), but also corresponding well with other informed aspects: Low effectiveness is captured by (1), (2), and (7), failures in transparent governance by (2) and (8).<sup>5</sup>

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<sup>5</sup> The conception of institutional quality that squares least obviously with the listed aspects is likely Rothstein and Teorell's (2008) notion of impartiality, although this is to a large degree a consequence of the concept's relatively encompassing and abstract nature. At least indirectly, aspects (1), (5), (6), and (7) would all be signs of partial exercise of power.

Aspect (3), "damage to the public trust or other intangible injury" is potentially a problematic indicator for the present purpose, as it presumes loss of citizens' confidence, thus risking endogenizing vote loss. However, this grounds for critique is always accompanied by at least one other reason in the data used, eliminating the risk that this factor alone is the reason for audit critique.

By design, these reports make for relatively hard measures, as they—based on initiated experts’ (the auditors and their assistant experts) assessments—capture specific instances of institutional dysfunction, rather than the general perceptions, upon which the mainstream measures tend to rely.

Although it is not within the auditors’ purview to explicitly recommend voters to vote for or against an incumbent, there are few clearer signals of low institutional performance than when the agent whose explicit, law-mandated, task it is to oversee government affairs gives it a failing grade. Notably, this list clearly does not merely capture nebulous theoretical concepts, but many aspects of what a voter would likely consider to be bad institutions—for example, due to (2) deficient control mechanisms, (6) government agents engage in unlawful activities, wherein (4) public money disappears, and then (8) the agents cover up their transgressions.

As demonstrated in appendix B, this type of event is almost ubiquitously reported in the local press, further increasing its salience; a selection of local newspaper headlines illustrates the way in which voters might catch word of the event: *Auditor on politician’s mistake: “Hard to fathom”* (Gothenburg 2015 [Pettersson 2016]); *Harsb critique against committee chair* (Arvidsjaur 2012 [Sundkvist 2013]); *Municipal executive board receives hearty berating* (Båstad 2010 [Pettersson 2010]); *Audit critique: A remark is really serious* (Lund 2013 [Ziegerer 2014]).

## Independent Variable

The principal treatment used in the subsequent analysis, *audit critique*, is a dummy variable indicating whether the audit committee of a Swedish municipality has launched formal critique during a given term period. The audit data is available between 2002 and 2015 for Sweden’s 290 municipalities, thereby capturing audit critique for three full term periods: 2003-06, 2007-10, and 2011-14. As the position of mayor was found to have shifted between parties mid-term 35 times during this period, the resulting sample consists of 905 observations.<sup>6</sup> It is relatively common for a municipality to receive formal critique at some point during a term. In 27% of municipal term-periods (242 in-

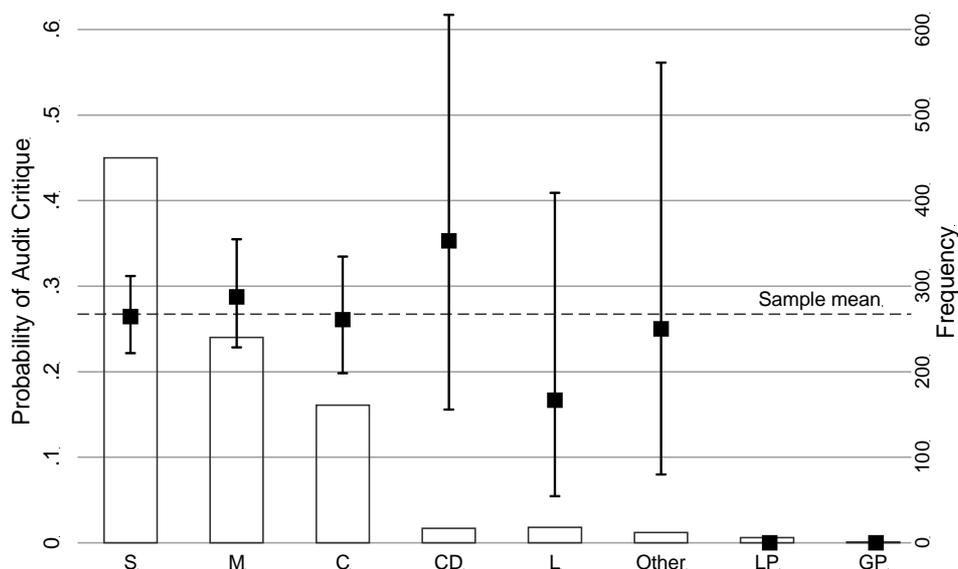
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Appendix A further describes the steps taken to construct the Swedish Municipal Audit Report (SMAR) database, which covers audit remarks in Swedish municipalities between 2002 and 2015. It also contains tests of the external validity of audit critique as a holistic measure of institutional quality, as suggested herein. The results are strongly affirmative of this notion.

<sup>6</sup> See note 13 below for more information on how intra-term period power shifts were handled. Although elections were held in September 2006, 2010, and 2014 (concurrent with elections at the national and regional level), new local governments are to assume power no later than at the start of the subsequent years (Svensk Författningssamling 1991, ch. 1 §12).

stances) audit committees wielded critique at one or more instances. As figure 2 shows, there is no discernable political bias in terms of which party is on the receiving end.

FIGURE 1, (PROBABILITY OF AUDIT CRITIQUE IS ORTHOGONAL TO WHO RULES)



Note. Reported frequencies of municipal-term periods of rule, by party. S=Social Democrats; M=Moderates; C=Centre Party; CD=Christian Democrats; L=Liberals; Other=Other, local, party; LP=Left Party; GP=Green Party. No mayoral party has a significantly distinguishable probability of audit critique from any other party or the sample mean. Municipal term-periods with the Left Party (6 instances of rule) and Green Party (1 instance) as mayoral party received no audit critique during the sample period. Results from logistic regression with standard errors clustered at the municipality-level. Capped lines display 95 % confidence intervals.

The SMAR database offers further precision regarding the nature of the critique launched. First, as mentioned above, it is possible to distinguish between a remark and a dissuasion of discharge. Although the latter is a more serious type of critique, both types are of interest for the present purpose, as an infraction “only” prompting a remark is derived from the same parameters as a dissuasion of discharge, and is still considered a serious matter, as evident in its media attention (see appendix B). Second, we can distinguish critique for the top level, i.e., the municipal board, from its lower-level committees. Both these nuances are considered in extensions of the main analysis.

## Empirical Strategy

To estimate the relationship between bad institutions, captured through audit critique, and incumbents’ electoral performance, I begin with the basic equation,

$$\Delta \text{Incumbent's electoral performance}_{it} = a + \beta_1 \text{Audit critique}_{it-1} \\ + \beta_2 \text{Incumbent's electoral performance}_{it-1} + \gamma_{it-1} + \delta_t + \varepsilon_{it},$$

where  $i$  indicates municipality and  $t$  term period.  $\beta_1$  represents the main coefficient of interest, whether audit critique has been launched during  $t-1$ .  $a$  denotes the intercept, which in this model represents the commonly observed cost-of-ruling-effect. Capturing a related but distinct regression to the mean-effect, given that a party that performed well enough to win the previous election more likely than not over performed and will tend to lose votes in the next election (Barreiro 2008, 32),  $\beta_2$  represents the vote share of the incumbent for  $t-1$ . To account for country-wide electoral trends, I include term period-fixed effects,  $\delta_t$ .  $\gamma_{it-1}$  is a vector of control variables accounting for other economic, political, and structural factors that may influence incumbents' electoral success. The error term  $\varepsilon_{it}$  is clustered at the municipal level.

## Dependent Variables

The choice of whether to restrict focus to the electoral performance of the party leading a government (Anderson 2000; Fisher and Hobolt 2010; Hellwig and Samuels 2007; Larsen 2016) or the entire government is not a priori obvious. As a result of Sweden's system of proportional representation and low electoral threshold, most (87 %) governments in the sample are coalitions. Although all coalition members reasonably carry some measure of responsibility for potential institutional failures during their tenure, the main ruling party—which tends to be the one whose representative holds the post of mayor—almost by default carries a heavier burden of responsibility; as Karlsson and Gilljam (2016, 704) note, the mayor is the “undisputed leader of a Swedish municipality.” Furthermore, Angelova, König, and Proksch (2016) find that German voters attribute responsibility to the main governing party to a higher degree than to its coalition partner, concluding that failure to account for such differentiation brings a risk of underestimating the actual extent of electoral accountability. Recent evidence from Finland, a context very similar to the Swedish case, shows that, while voters were well aware of the identity of the Prime Minister's party, only around a third could correctly identify the composition of the entire ruling coalition (Rapeli 2016). Due to these important and sometimes overlooked considerations, the strategy herein will be to primarily focus on the party that holds the position of mayor, and to separately estimate the electoral performance of the entire government, as well as the supporting coalition members, in secondary models in order to explicitly gauge whether these parties share the electoral burden of responsibility.

Following this, the primary dependent variable,  $\Delta$ Mayoral party vote share, is calculated as the percentage point difference in vote share between term period  $t-1$  and  $t$  for the party that holds the position of mayor. Information on the identity and party of mayors was initially provided by a SALAR staff member and crosschecked with information on mayors collected by Dr. David Karlsson, as well as local media reports (see appendix E). As an extension, I created the binary variable *Mayoral party reelected*, capturing whether the mayoral party in period  $t-1$  manages to retain the post in the subsequent term period. While this indicator introduces noise in terms of inter-party negotiations—which is an important stage between the election and the installation of the new municipal government—this process can itself be reflective of political success, as well as a crucial outcome for a party vying for power. Certainly, noticeable decreases in vote share for the mayoral party paired with a null finding in terms of reelection probability would be a worrying finding regarding the twin accountability mechanisms of audits/elections, since it would be indicative of backroom deals that risk hampering both of these essential democratic functions.

For the secondary, government-level, analysis, I created two variables analogous to  $\Delta$ Mayoral party vote share:  $\Delta$ Government vote share and  $\Delta$ Supporting parties' vote share, derived from the same sources as the information on mayors.<sup>7</sup>

## Control variables

As the focus of this study is to gauge voters' response to institutional failure itself, it is necessary to account for broader economic factors. In lieu of a suitable variable that corresponds to the conventional GDP per capita measure on a municipal level (Lewis-Beck and Stegmaier 2000, 188-189), the models will include the annualized difference in mean income between the final years of term periods  $t-2$  and  $t-1$  to account for general fluctuations in the private economy of voters. Municipal leaders are also at least partially responsible for employment rates. To this end, I use annualized change in *Unemployment* rates for the 18 to 64-year-old population (see Barreiro 2008, 30; Helgason and Mérola 2017). Two economic factors more directly relating to governments' undertakings (Kramer 1983) are included: *Change in municipal tax rate* and the municipalities' *Fiscal result*. The latter is operational-

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<sup>7</sup> Due to the complexity, and in several cases instability, of these governments, I made extra efforts to double-check and identify instances where a government had changed its composition during a given term—with or without a simultaneous change in mayoral party—making for a slightly expanded sample of 966 cases for the government-level analysis. For intra-term period changes in mayoral party or government, I used local news reports from the Swedish Media Archive (Retriever 2017) to identify the precise timing of a shift in power. If the outgoing government/mayoral party remained until July 1<sup>st</sup>, it is allotted the year, otherwise it falls to the incoming government/mayoral party (see appendix E for more details).

ized through total municipal fiscal results (per capita during period  $t-1$ , also included as its squared term. Here, the logic could go two ways: on the one hand, municipal governments may spend aggressively and provide generous public goods as a short-term strategy to secure reelection; on the other hand, voters may become aware that the municipality is fraught with a deficit and choose to elect a new leadership that is more fiscally responsible. Next, I include *Mayoral party ousted mid-term*, an indicator of whether the mayoral party resigns from power before the subsequent election. Finally, I control for *Mayoral party ID*, the identity of the party in power. Although there are no strong theoretical expectations as to why a certain party would affect the quality of municipal government (a notion bolstered by the absence of systematic inter-party differences in the probability of critique, as demonstrated figure 1 above), this likely picks up unmeasured socioeconomic, demographic, and geographical variation, which in turn may affect both institutions and vote choice. Furthermore, in combination with the term period fixed effects, this variable functions as a control for general country-wide political trends. Tables C1 and C2 in the appendix display the descriptive statistics for all included variables.

## **Audit Critique and Incumbents' Electoral Performance**

I begin the empirical analysis with the most general question: Is audit critique linked to incumbents' vote loss in Swedish municipalities? In brief, the answer is yes. Column 1 in table 1, which displays the bivariate results regressing  $\Delta$ Mayoral party vote share on audit critique, shows that critique is associated with a vote loss to the magnitude of just above a percentage point ( $p < 0.05$ ). Including lagged vote share and term-period fixed effects (column 2) leaves this link virtually unaffected. Adding the battery of economic, political, and demographic control variables (column 3) marginally weakens its coefficient size to slightly below a percentage point, while introducing party fixed effects (column 4) in the preferred specification results in the strongest observed relationship between audit critique and vote loss for the mayoral party,  $-1.25$  ( $p < 0.01$ ). To put this vote loss in comparison with other relevant predictors, receiving audit critique marginally trumps the electoral damage associated with a percentage point increase in either the municipal tax rate or annual unemployment, rare events that occurred 35 and 27 times, respectively, during the sample period.

TABLE, 1( $\Delta$ MAYORAL PARTY VOTE SHARE & AUDIT CRITIQUE)

	(1)	(2)	(3)	(4)
<b>Audit Critique</b>	-1.07**	-1.05**	-0.95**	-1.25***
	(0.43)	(0.41)	(0.41)	(0.40)
<b>Mayoral Party Vote Share<sub>t-1</sub></b>		-0.15***	-0.16***	-0.24***
		(0.02)	(0.02)	(0.02)
<b><math>\Delta</math>Municipal Tax Rate</b>			-1.14*	-1.01
			(0.62)	(0.64)
<b>Mayoral Party Resigns Mid-Term</b>			-2.38**	-2.02**
			(0.93)	(0.85)
<b>Fiscal Result</b>			0.00***	0.00***
			(0.00)	(0.00)
<b>Fiscal Result<sup>2</sup></b>			-0.00***	-0.00**
			(0.00)	(0.00)
<b>Mean Income, Annual Growth (%)</b>			0.14	0.22
			(0.46)	(0.44)
<b>Unemployment, Annual Growth (%)</b>			-0.98*	-0.91*
			(0.55)	(0.50)
<b>Intercept</b>	-1.60***	5.11***	4.89***	9.33***
	(0.20)	(0.75)	(1.76)	(1.75)
<b>Observations</b>	905	905	905	905
<b>R-squared</b>	0.01	0.15	0.17	0.28
<b>Term period FEs</b>	No	Yes	Yes	Yes
<b>Party FEs</b>	No	No	No	Yes

*Note. Dependent variable:  $\Delta$ Mayoral party vote share. Standard errors, clustered at municipality-level, in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .*

In order to ascertain that these results are not contingent on a particular modeling choice or estimation technique, I conducted a number of additional tests by modifying the baseline specifications in several ways. I excluded influential cases (see table D1 in the appendix), estimated the dependent

variable as levels instead of change in pooled and fixed effect models (see Whitten and Palmer 1999; table D2), replaced period- and party fixed effects with a measure of the country-level change in mayoral party vote share in the parliamentary election to directly estimate nation-level trends in mayoral party support (table D3), exchanged the original dependent variable for one measuring change in vote share as a proportion of total votes for the mayoral party at  $t-1$  (the approach favored by Karlsson and Gilljam 2016; table D4), and modeled the original estimations while ignoring intra-term power shifts by only using one observation per municipal term-period (focusing on the mayoral party directly following the election; table D5). These modifications consistently garner associations between audit critique and vote loss comparable or stronger than those presented in table 1 above.

Furthermore, I replaced the original specification's term period- and party fixed effects with a control for the municipality-specific change in vote share for the mayoral party in the concurrent parliamentary election (table D6). This makes for an especially tough test, and one that is bound to bias the results for audit critique downward, as such a model makes the implausible assumption that the extent to which voters in a given municipality support the mayoral party in parliament is strictly exogenous to their perception of the same party's performance locally. Nevertheless, audit critique remains significant at the 90% threshold in the bivariate model and at the 95% level or higher when controls are included.

Finally, and to further test the notion that the observed process really is on based on faltering institutional quality, I exchanged the audit critique measure with three alternate indices of institutional quality, all of which are available for the final 2011-14 term period (table D7).<sup>8</sup> All these alternate variables display associations in the expected direction, with two significant at the 95 % level or better. Taken together, these additional tests further bolster the notion of institutional performance voting being a factor in Swedish municipal elections.

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<sup>8</sup> A Quality of Government-index (Dahlström and Sundell 2013; Karlsson and Gilljam 2014) capturing municipal politicians' perception of the extent of bribery, partiality, and meritocratic recruitment, a question on the quality of application of laws and rules derived from an annual survey of local businesspeople by the Confederation of Swedish Enterprise (n.d.) (values averaged for the term period), and a composite index of top municipal politicians' and bureaucrats' perceptions of corruption in seven administrative spheres from a 2011 survey by the Swedish Agency for Public Management (2012).

## Extensions

Having found robust evidence that incumbents pay an electoral price for faltering institutional quality, we can further nuance this general picture. First, although losing votes is never desirable for a political party, losing power is inherently the most consequential price to pay for low institutional performance. As mentioned, the link between these outcomes is far from perfect in a PR-system, considering the common presence of post-election bargaining. For example, Bågenholm (2013) finds that although there is an electoral cost for European governments implicated in corruption scandals, this is not significantly related to actual change in government. To test this, I use logistic regression to predict the probability of reelection for the mayoral party in the subsequent election, contingent on audit critique, while using the same modeling strategy as in table 1. Concordant to the observation of significant vote loss for criticized mayoral parties, such parties also face a diminished probability of reelection to the magnitude of 12 to 14 percentage points ( $p < 0.01$  or better, with the predicted reelection rate dropping from 67 to 53 percent in the fully controlled model), a consequence that should arguably concern criticized mayors more than the previously observed vote loss of a percentage point (full results in table D8 in the appendix).<sup>9</sup> Further analysis (in table D10) shows that, even with vote share in election  $\epsilon$ —that is, the verdict from the electorate—accounted for, critique remains significantly ( $p < 0.1$  or better) related to a diminished probability of reelection for the mayoral party. This indicates that critique wields additional, behind the scenes, damage during post-election interparty negotiations.

Second, by switching focus to governments at large, and in the common case of coalition rule their supporting members, weaker patterns emerge. Estimated bivariately, governments significantly lose votes, but to a lesser degree (0.82 percentage points,  $p < .05$ ) and, once temporal aspects and controls are considered, we end up with a null relationship (full results in table D11 in the appendix). Considering the finding that criticized mayoral parties do lose votes, this indicates welcome news for supporting parties in criticized coalitions; indeed, the coefficient for  $\Delta$ Supporting parties' vote share is consistently *positive*, although consistently insignificant (full results available in table D12 in the appendix). Taken together, these results support the notion that while Swedish municipal voters attribute blame for dysfunctional institutions, that burden is for the top to bear alone.

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<sup>9</sup> Conditional logit models, which only include municipalities with variation in audit critique, were also run to reduce the risk of omitted variable bias. The results, available in full in table D9 in the appendix, show even lower odds ratios for audit critique than in the pooled models, thus increasing the credibility of the hypothesized link.

Third, when disaggregating audit critique, two informative patterns emerge: When estimated bivariately, critique directed at the executive board is related to larger mayoral party vote loss than when it is limited to committees, whose bivariate coefficient is insignificant. However, the inclusion of controls turns this on its head, rendering critique for executive board insignificant ( $p=0.17$ ), but critique for committees significant. A closer look shows this to be likely tied to the inclusion of Fiscal Result and  $\Delta$ Municipal tax rate: Critique for the top echelons of power is significantly tied to the way in which the municipal economy is handled. Furthermore, a recommendation to dissuade discharge—the harsher version of critique—is, unsurprisingly, associated with greater mayoral party vote loss than “mere” remarks (full results in table D13).

Fourth, in their reviews of retrospective economic- and corruption voting, both Healy and Malhotra (2013) and de Vries and Solaz (2017) emphasize the importance of voters actually acquiring relevant information in order to be able to exert accountability. Indeed, if voters on election day are unaware of audit critique, and it is still related to vote loss, the information about institutional dysfunction must have spread in other ways. To this end, supplementary analysis presented in appendix B leverages the temporal lag of audit reports (the report for year  $y$  must be published and presented to the municipal assembly before July 1<sup>st</sup> in year  $y+1$ ) and compares audit critique released before and after elections. The results indicate that it does not matter whether the actual audit reports are available to voters on election day for the observed propensity to punish criticized mayoral parties. This lends tentative support to the notion that critique, rather than functioning as a direct signal to voters, reflects institutional dysfunction already perceived by the electorate, for example through personal experiences or continuous local media coverage of the issues, eventually leading to formal critique (a finding that receives weak statistical support in table B2 in the appendix). Nevertheless, auditors may yet have a signaling function, but in a more piecemeal fashion; as a SALAR report (2012) notes that most audit committees produce regular activity reports to the municipal assemblies continuously during each year, there is a real possibility of institutional deficiencies found during the auditing process coming to the attention of voters even before the formal critique is launched.

## Conclusion

In this study, I seek to develop the current state of knowledge on the relationship between institutional quality and electoral accountability, both theoretically and empirically. I depart by introducing the concept of institutional performance voting, a concept that I contend to be a more appropriate way of approaching government performance than the economic focus still largely dominating the literature on retrospective voting. Furthermore, due to its firm theoretical footing in the now vast literature on institutional quality, this concept is both more theoretically informative and arguably more salient for voters than the relatively narrow focus on political corruption that has hitherto been the leading indicator when linking institutional quality to electoral accountability.

Building on this argument, I use municipal performance audit reports to capture institutional dysfunction in Swedish municipalities, a type of high performing setting where performance- and corruption voting have hitherto been largely unexplored. The results reveal that accountability mechanisms appear to work as desired on a general level, as local voters punish events associated with critique to a magnitude rivaling or surpassing the usual economic suspects, and substantively diminishing mayoral parties' reelection prospects. Adding to a slew of findings on corruption voting in mid- and low-performing contexts, these results bolster the notion of a universal, if modest, electoral punishment for low institutional performance.

It should, however, be noted that these findings, also demonstrate the limitations of electoral democracy, adherent to a long line of existing research on economic- and corruption voting. Most notably, electoral punishment does not extend further down the political hierarchy than to the party that holds the position of mayor, as supporting coalition parties are closer to gaining than losing votes under such circumstances, despite the fact that they plausibly should carry at least part of the responsibility.

The results in this study both challenge and support the existing state of research on retrospective voting. On the one hand, they offer further evidence that voters are at least somewhat sensitive to low government performance. On the other hand, they demonstrate the value of looking at other sources of performance data than macroeconomic indicators or medialized corruption scandals.

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## APPENDICES

**Appendix A: The Swedish Municipal Audit Report database**

**Appendix B: Audit critique as signal or reflection of institutional dysfunction?**

**Appendix C: Summary statistics**

**Appendix D: Robustness tests**

**Appendix E: Description of Data Sources**

## Appendix A: The Swedish Municipal Audit Report database

The data on performance audit reports was derived in two steps. First, in *The databank of responsibility testing* (orig. *Ansvarsprövningsbanken*), the Swedish Association of Local Authorities and Regions (SALAR 2017) compiles a record of formal audit critique from Swedish municipalities and regions between 2002 and 2015. In 305 instances, a municipality was found to have received one or more points of formal critique. Second, as I found that the database contained a number of false negatives, the SALAR database was supplemented by an extensive search in the Swedish Media Archive (Retriever 2017) for additional instances of critique, complemented by confirmatory documentation gathered directly from the archives of the municipalities in question. This approach garnered an additional 69 instances of critique. This work resulted in the Swedish Municipal Audit Report (SMAR) database ([author] 2017).

### *The structure of municipal audit committees in Sweden*

Members of audit committees (henceforth “auditors”) tend to have a political background, and are chosen for each four-year term period by the municipal assembly. The majority of municipalities appoint the legal minimum of five auditors, although the largest cities like Stockholm and Gothenburg tend to have considerably larger audit committees of around twenty members (SALAR 2016). In three-fourths of cases, the chairperson is a representative of the political opposition (data from Statistics Sweden [2017], with adjustments for intra-period changes by the author). Although auditors are not supposed to act in the interest of their respective parties, this system of politicized audit committees has been a consistent source of criticism by Swedish policy experts (Ahlenius 2013). Nevertheless—and interestingly—between 2002 and 2015, the years for which audit critique data is available, audit committees led by a representative of a ruling coalition were actually *more* prone to give out critique, with 12 % of years with audit critique, compared to 8 % for those helmed by the minority. One potential explanation for the seeming absence of the politicization of audit critique is that any member of the audit board is free to launch formal critique as they please, even if the chair does not concur. A second—and likely even more potent—reason is the fact that the underlying basis of auditors’ rulings are based on reports conducted by professional assistant experts. In almost all municipalities this task is outsourced to professional audit bureaus. Since Swedish law (SFS 1991:900, ch. 9 §16) stipulates that the investigations written by the assistant experts be published alongside the municipal auditors’ reports, it would therefore not be risk free for an auditor or audit committee to draw a conclusion drastically different from the judgments of the external experts.

*External validation of audit critique as an indicator of institutional performance*

Although there are currently few indicators of institutional quality in Swedish municipalities, I use three such measures to test the external validity of audit critique as an operationalization of the concept.<sup>10</sup> Three indicators were correlated with an aggregate measure of total years in which audit critique has befallen a given municipality between 2002 and 2015: First, a composite quality of government-index derived from a battery of questions on the extent of impartiality, bribery, and meritocracy in the municipality (Dahlström and Sundell 2013; see appendix E), gathered from a survey of Swedish municipal politicians in 2012-13 (Karlsson and Gilljam 2014). Second, a composite index of municipal politicians' and bureaucrats' perceptions of corruption in seven administrative spheres, taken from a 2011 survey by the Swedish Agency for Public Management (Statskontoret 2012; see Appendix E). Third, a question regarding the quality of the application of laws and rules, derived from an annual survey of local businesspeople by the Confederation of Swedish Enterprise (n.d.), aggregated for the years 2002-15, but with data missing for 2014.

The correlations with audit critique are consistently and significantly in the expected directions. The modest strengths observed are not surprising, considering the multifaceted nature of the institutional quality-concept itself.

TABLE A1, (AUDIT CRITIQUE & ALTERNATE INDICES OF INSTITUTIONAL QUALITY IN SWEDISH MUNICIPALITIES)

	<b>Correlation-coefficient</b>
<b>Quality of government index</b>	<b>-.18***</b>
<b>Corruption index</b>	<b>+.12**</b>
<b>Application of laws and rules</b>	<b>-.26***</b>

*Note.* Pearson correlation-coefficient.  $n=290$ . \*\*\*  $p<0.01$ , \*\*  $p<0.05$ , \*  $p<0.1$ .

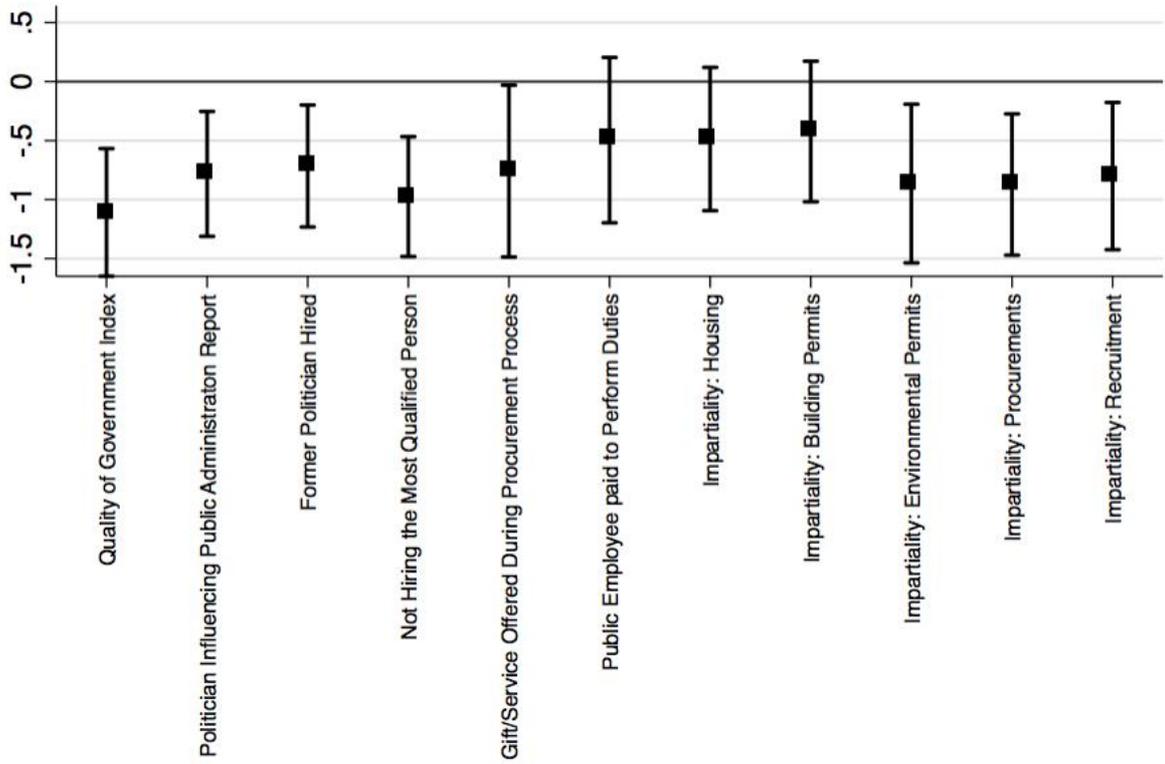
Using the sub-indicators underlying the quality of government index we can further test the notion that audit critique actually captures a broader notion of institutional quality, and is not, for instance, merely a further proxy for corruption. The quality of government index consists of ten individual sub-indicators (Politician Influencing Public Administration Report, Former Politician Hired, Not Hiring the Most Qualified Person, Gift/Service Offered During Procurement Process, Public Em-

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<sup>10</sup> Using the same underlying data as for the indices used in table D7.

ployee paid to Perform Duties, and the level of impartiality in five distinct areas: Housing, Building Permits, Environmental Permits, Procurements, Recruitment). Provided that audit critique serves as a cohesive measure of institutional quality and all of these indicators are drawn from the same source of data, it should follow that the composite measure correlate stronger to critique than its individual sub-indicators. Figure A1 displays the coefficient for each sub-indicator, as well as the composite measure, derived from separate Poisson regressions predicting the aggregated audit critique measure. Indeed, although the relationship is in the expected, negative, direction in every case, the relationship is stronger for the latter than any of its constituting parts. These results further bolster the notion that the critique measure not only captures institutional dysfunction, but does so more cohesively than, for example, a conventional measure of corruption.

FIGURE 1A, (AUDIT CRITIQUE & GOVERNMENT QUALITY INDEX, AND ITS CONSTITUTING PARTS)



Note. Results from bivariate Poisson regressions. All independent variables set to range between 0 and 1, with high values indicative of high institutional quality. Independent variable: Number of years with audit critique 2002-2015. Capped lines display confidence intervals at the 95 % level.

## Appendix 2: Audit critique as signal or reflection of institutional dysfunction?

The key role of media for transmitting knowledge of wrongdoing to the electorate is among the clearest findings derived from the literature on voting and corruption scandals; a transgression tends to become a scandal only if it is covered in the press. The literature tends to capture this in two different ways: One strand of studies derives its measures of scandals directly from media reports (e.g. Costas-Perez et al. 2012; Fernández-Vázquez et al. 2016), thus making media attention itself the treatment, and only indirectly capturing the actual instance of wrongdoing. Another strand complements ‘hard’ data on corruption or malfeasance with data on media proliferation (Ferraz and Finan 2009; Chang et al. 2010), thereby capturing media influence as a contextual variable. Bridging this division would allow for directly observing whether the observed link between audit critique and mayoral parties’ vote loss happens due to negative attention stemming from the public’s awareness of the report—a signal effect—or if the link is rather a reflection of voters’ actual experiences with dysfunctional institutions.

One a priori promising strategy to capture the signal effect of audit critique would be to compare instances of audit critique that are reported in the media with those which are not. However, an extensive search using the Swedish Media Archive (Retriever 2017) makes clear that the vast majority of instances of audit critique are reported in the local press, television, or radio. For the two latter term periods in the sample, 2007-10 and 2011-14, the search only failed to find media reports for 18 instances, or 7.3%, of audit critique, with the possibility of false negatives being derived from idiosyncratic wording of the source material or certain media sources being missing from the Media Archive. The corresponding figures for the first term period included in the analysis garnered a considerably lower share of critique with media attention (40.5%), although this is in all likelihood due to the fact that digital coverage in the Swedish Media Archive is spotty before the mid-00’s.

Another approach to gauge the signal effect is to take advantage of the timing of the municipal audit reports, since the annual report, where the auditors present their recommendations of discharge, are released during the spring of the following year. Thus, audit critique during election years (the 4<sup>th</sup> year in a term-period) is not made public until spring/summer the year *after* the election was held. However, table B1, which estimates the marginal effect of Audit critique on  $\Delta$ Mayoral party vote share by year in term period, shows no marked differences between critique in

the 4<sup>th</sup> year and other years. In fact, the link to vote loss is slightly stronger than average for 4<sup>th</sup>-year critique.

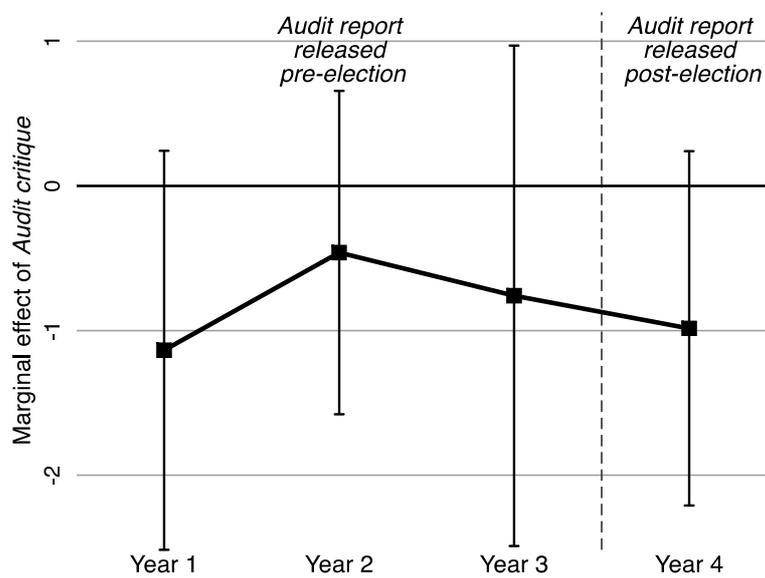
TABLE B1, ( $\Delta$ MAYORAL PARTY VOTE SHARE & GENERAL AUDIT CRITIQUE, BY YEAR IN TERM-PERIOD)

(1)	
Audit critique in:	
1 <sup>st</sup> year	-1.14
	(0.70)
2 <sup>nd</sup> year	-0.46
	(0.57)
3 <sup>rd</sup> year	-0.76
	(0.88)
4 <sup>th</sup> year	-0.98
	(0.62)
Observations	3,478
Municipalities	290
R-squared	0.00

*Note. Dependent variable:  $\Delta$ Mayoral party vote share. Standard errors, clustered at municipality-level, in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .*

As evident from figure B1, which plots the average marginal effects of audit critique by each of the four years in a given term period, 4<sup>th</sup>-year critique is, on average, associated with slightly higher vote losses, providing grounds to rebuke the notion that audit critique functions as a signal to voters, at least directly.

FIGURE B1, ( $\Delta$ MAYORAL PARTY VOTE SHARE & GENERAL AUDIT CRITIQUE, BY YEAR IN TERM-PERIOD)



Note. Estimates derived from table B1. Capped lines display confidence intervals at the 95 % level

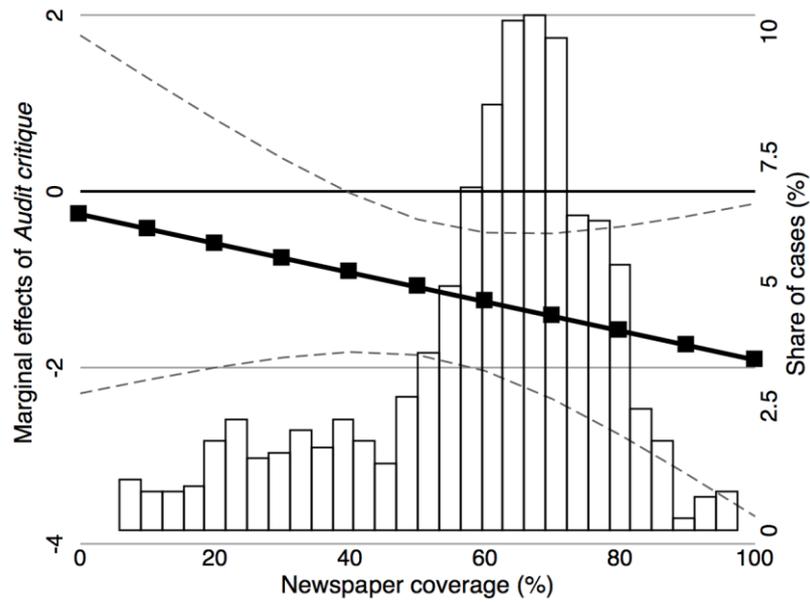
One likely explanation for the lack of difference between pre-(1<sup>st</sup> to 3<sup>rd</sup>-year) and post-(4<sup>th</sup> year) election reports is the fact that, according to a survey carried out by SALAR (2012), auditors in most municipalities state that they continuously report the results of their findings during the year to the municipal assembly. Thus, any audit critique signals are likely to be dispersed throughout a year.

Second, media may still play a role in the story by means of signaling to voters through covering the root causes of the problems that the audit reports only at a later stage reflect. Despite the lack of variation in media coverage of audit critique discussed above, this notion can be tested indirectly by interacting audit critique with a measure of local newspaper coverage in Swedish municipalities.<sup>11</sup> Estimating the marginal effect of audit critique contingent on the extent of local newspaper coverage in Swedish municipalities, there are indeed signs of a media factor – if only to a modest degree: Figure B2 shows that the negative coefficient for *Audit critique* is significant only in municipalities

<sup>11</sup> Data from TS Mediefakta (n.d.). Variable captures the circulation for local newspapers in each municipality, calculated as the percentage point share of total households. Mean value for respective term period. Unfortunately, since data for after 2010 is unavailable, the 2011-14 term period is given the 2010 values.

where the number of total newspaper subscriptions exceeds 40% of total households, although the interaction term itself is insignificant ( $p=0.35$ ; see table B2 below for full results).

FIGURE B2, ( $\Delta$ MAYORAL PARTY VOTE SHARE & AUDIT CRITIQUE, CONDITIONAL ON LOCAL NEWSPAPER COVERAGE)



Note. Figure displays the average marginal effects of Audit critique on levels of Local newspaper coverage, controlled for  $vote\ share_{t-1}$ , term period and party fixed effects, and the complete battery of control variables (derived from column 4 in table B2).

TABLE B2, ( $\Delta$ MAYORAL PARTY VOTE SHARE & AUDIT CRITIQUE, CONDITIONAL ON LOCAL NEWSPAPER COVERAGE)

	(1)	(2)	(3)	(4)
<b>Audit Critique</b>	-0.29	-0.44	-0.42	-0.26
	(1.09)	(1.08)	(1.07)	(1.03)
<b>Audit Critique *</b>	-0.01	-0.01	-0.01	-0.02
<b>Newspaper coverage (%)</b>	(0.02)	(0.02)	(0.02)	(0.02)
<b>Newspaper Coverage (%)</b>	0.03**	0.01	0.02	0.02
	(0.01)	(0.01)	(0.01)	(0.01)
<b><math>\Delta</math>Municipal Tax Rate</b>			-1.21*	-1.05
			(0.62)	(0.64)
<b>Mayoral Party Vote Share<sub>t-1</sub></b>		-0.15***	-0.15***	-0.24***
		(0.02)	(0.02)	(0.02)
<b>Mayoral Party Resigns Mid-Term</b>			-2.31**	-1.98**
			(0.94)	(0.86)
<b>Mean Income, Annual Growth (%)</b>			0.02	0.12
			(0.47)	(0.45)
<b>Unemployment, Annual Growth (%)</b>			-0.98*	-0.92*
			(0.55)	(0.51)
<b>Fiscal Result</b>			0.00***	0.00***
			(0.00)	(0.00)
<b>Fiscal Result<sup>2</sup></b>			-0.00***	-0.00**
			(0.00)	(0.00)
<b>Intercept</b>	-3.06***	4.18***	4.11**	8.48***
	(0.74)	(1.06)	(1.82)	(1.81)
<b>Observations</b>	901	901	901	901
<b>R<sup>2</sup></b>	0.01	0.15	0.17	0.28
<b>Term period FEs</b>	No	Yes	Yes	Yes
<b>Party FEs</b>	No	No	No	Yes

Note. Dependent variable:  $\Delta$ Mayoral party vote share. Standard errors, clustered at municipality-level, in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.10$ . Appendix C: Summary statistics

TABLE C1, (SUMMARY STATISTICS, MAYORAL PARTY SAMPLE

	(1)	(2)	(3)	(4)	(5)
	N	mean	sd	min	max
<b>Audit Critique</b>	905	0.267	0.443	0	1
<b>Critique for Executive Board</b>	905	0.140	0.348	0	1
<b>Critique for Committee</b>	905	0.148	0.355	0	1
<b>Dissuasion of Discharge</b>	905	0.0663	0.249	0	1
<b>Remark</b>	905	0.230	0.421	0	1
<b>ΔMayoral Party Vote Share</b>	905	-1.889	6.103	-33.10	20.10
<b>ΔMayoral Party Vote Share, Proportional to Vote Share<sub>t-1</sub></b>	905	-3.900	22.19	-75.74	176.6
<b>Mayoral Party Reelected</b>	905	0.686	0.464	0	1
<b>Mayoral Party Vote Share<sub>t-1</sub></b>	905	35.01	11.19	3.600	67.40
<b>Mayoral Party Resigns Mid-Term</b>	905	0.0398	0.196	0	1
<b>Fiscal Result</b>	905	3,442	5,490	-22,150	114,726
<b>Mean Income, Final Year (Logged)</b>	905	5.416	0.142	5.139	6.182
<b>Mean Income, Annual Growth (%)</b>	905	2.900	0.547	0.401	5.612
<b>Unemployment, Final Year</b>	905	6.934	2.351	1.161	17.20
<b>Unemployment, Annual Growth (%)</b>	905	0.0996	0.554	-3.404	2.674
<b>Population</b>	905	31,893	63,884	2,451	911,989
<b>ΔMayoral Party National Vote Share</b>	893	-1.337	4.411	-6.800	10.90
<b>ΔMayoral Party Municipal Vote Share in Parliamentary Election</b>	893	-1.463	5.278	-13.80	20.30
<b>Mayoral Party ID:</b>					
<b>Social Democrats</b>	905	0.497	0.500	0	1
<b>Moderates</b>	905	0.265	0.442	0	1
<b>Centre Party</b>	905	0.178	0.383	0	1
<b>Christian Democrats</b>	905	0.0188	0.136	0	1
<b>Liberals</b>	905	0.0199	0.140	0	1
<b>Left Party</b>	905	0.00663	0.0812	0	1
<b>Green Party</b>	905	0.00110	0.0332	0	1
<b>Other</b>	905	0.0133	0.114	0	1

<b>QoG Index</b>	290	0.445	0.186	0	1
Application of Laws and Rules	290	0.547	0.175	0	1
Corruption Index	290	0.559	0.175	0	1

TABLE C2, (SUMMARY STATISTICS, FULL GOVERNMENT & COALITION SAMPLE)

	(1)	(2)	(3)	(4)	(5)
	<b>N</b>	<b>mean</b>	<b>sd</b>	<b>min</b>	<b>max</b>
<b>Audit Critique</b>	965	0.255	0.436	0	1
<b>ΔGovernment Vote Share</b>	965	-3.939	5.766	-26.70	14.90
<b>Government Vote Share<sub>t-1</sub></b>	965	53.91	8.013	26.50	99.60
<b>Government Breakdown Mid-Term</b>	965	0.101	0.301	0	1
<b>Fiscal Result</b>	965	3,241	5,319	-22,150	114,726
<b>Mean Income, Annual Growth (%)</b>	965	2.894	0.597	-0.571	5.612
<b>Unemployment, Annual Growth (%)</b>	965	0.0812	0.676	-3.812	4.443
<i>Government Ideology:</i>					
<b>Left-Wing</b>	965	0.361	0.480	0	1
<b>Cross-Ideological</b>	965	0.253	0.435	0	1
<b>Right-Wing</b>	965	0.387	0.487	0	1
<b>Supporting Parties' Vote Share<sub>t-1</sub></b>	844	21.82	10.90	3.300	72.30
<b>ΔSupporting Parties' Vote Share</b>	844	-2.169	4.185	-22.30	14.11

## Appendix D: Robustness tests

TABLE D1, ( $\Delta$ MAYORAL PARTY VOTE SHARE & GENERAL AUDIT CRITIQUE, EXCLUDING INFLUENTIAL CASES)

	(1)	(2)	(3)	(4)
<b>Audit Critique</b>	-1.28***	-1.24***	-1.13***	-1.43***
	(0.39)	(0.36)	(0.35)	(0.34)
<b>Mayoral Party Vote Share<sub>t-1</sub></b>		-0.14***	-0.14***	-0.23***
		(0.02)	(0.02)	(0.02)
<b>Mayoral Party Resigns Mid-Term</b>			-1.66**	-1.49**
			(0.68)	(0.64)
<b>Fiscal Result</b>			0.00***	0.00**
			(0.00)	(0.00)
<b>Fiscal Result<sup>2</sup></b>			-0.00	-0.00
			(0.00)	(0.00)
<b>Mean Income, Annual Growth (%)</b>			0.27	0.38
			(0.45)	(0.43)
<b>Unemployment, Annual Growth (%)</b>			-0.83*	-0.93**
			(0.49)	(0.45)
<b><math>\Delta</math>Municipal Tax Rate</b>			-0.99*	-0.79
			(0.55)	(0.54)
<b>Intercept</b>	-1.58***	4.55***	3.74**	8.21***
	(0.18)	(0.65)	(1.74)	(1.78)
<b>Observations</b>	857	857	857	857
<b>R<sup>2</sup></b>	0.01	0.16	0.18	0.30
<b>Term period FEs</b>	No	Yes	Yes	Yes
<b>Party FEs</b>	No	No	No	Yes

Note. Cases with a Cook's Distance-score exceeding 4/n excluded from regression. Dependent variable:  $\Delta$ Mayoral party vote share. Standard errors, clustered at municipality-level, in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

TABLE D2, ( $\Delta$ MAYORAL PARTY VOTE SHARE & GENERAL AUDIT CRITIQUE, MUNICIPALITY FIXED EFFECTS)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>Audit Critique</b>	-2.77***	-1.05**	-0.82**	-1.15***	-2.55***	-1.59***	-1.50***	-1.28**
	(0.87)	(0.41)	(0.41)	(0.39)	(0.86)	(0.58)	(0.57)	(0.54)
<b>Mayoral Party Vote Share<sub>t-1</sub></b>		0.85***	0.83***	0.74***		0.63***	0.62***	0.37***
		(0.02)	(0.02)	(0.03)		(0.04)	(0.04)	(0.05)
<b>Mayoral Party Resigns Mid-Term</b>			-0.56	-0.23			-2.79	-1.89
			(1.09)	(0.96)			(2.31)	(2.22)
<b>Population</b>			-0.00***	-0.00***			0.00	0.00
			(0.00)	(0.00)			(0.00)	(0.00)
<b>Municipal tax rate</b>			-0.18**	-0.15*			0.86	-0.05
			(0.09)	(0.09)			(1.05)	(0.99)
<b>Fiscal Result</b>			0.00***	0.00***			0.00***	0.00***
			(0.00)	(0.00)			(0.00)	(0.00)
<b>Fiscal Result<sup>2</sup></b>			-0.00***	-0.00**			-0.00***	-0.00***
			(0.00)	(0.00)			(0.00)	(0.00)
<b>Mean Income, Final Year (Logged)</b>			6.88***	5.37**			-20.62	-13.18
			(2.62)	(2.35)			(24.44)	(22.87)
<b>Unemployment, Final Year</b>			0.36**	0.37***			-0.01	-0.08
			(0.16)	(0.13)			(0.34)	(0.29)
<b>Intercept</b>	33.86***	5.11***	-29.97**	-17.72	30.85***	10.40***	108.95	92.35
	(0.61)	(0.75)	(14.71)	(12.92)	(0.29)	(1.62)	(136.10)	(125.24)
<b>Observations</b>	905	905	905	905	905	905	905	905
<b>R<sup>2</sup></b>	0.01	0.75	0.76	0.79	0.69	0.84	0.84	0.88
<b>Term period FEs</b>	No	Yes	Yes	Yes	No	Yes	Yes	Yes
<b>Party FEs</b>	No	No	No	Yes	No	No	No	Yes
<b>Municipality FEs</b>	No	No	No	No	Yes	Yes	Yes	Yes

Note. Dependent variable: Mayoral party vote share<sub>t</sub>. Standard errors, clustered at municipality-level, in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

TABLE D3, ( $\Delta$ MAYORAL PARTY VOTE SHARE & GENERAL AUDIT CRITIQUE, CONTROLLED FOR  $\Delta$ MAYORAL PARTY NATIONAL VOTE SHARE, PARLIAMENTARY ELECTION)

	(1)	(2)	(3)
<b>Audit Critique</b>	-0.90**	-1.09***	-0.96**
	(0.40)	(0.40)	(0.40)
<b><math>\Delta</math>Mayoral Party National Vote Share</b>	0.53***	0.45***	0.44***
	(0.05)	(0.05)	(0.05)
<b>Mayoral Party Vote Share<sub>t-1</sub></b>		-0.10***	-0.09***
		(0.02)	(0.02)
<b>Mayoral Party Resigns Mid-Term</b>			-0.04
			(1.13)
<b><math>\Delta</math>Municipal Tax Rate</b>			-1.67***
			(0.61)
<b>Fiscal Result</b>			0.00**
			(0.00)
<b>Fiscal Result<sup>2</sup></b>			-0.00*
			(0.00)
<b>Mean Income, Annual Growth (%)</b>			1.04**
			(0.44)
<b>Unemployment, Annual Growth (%)</b>			1.41***
			(0.48)
<b>Intercept</b>	-0.86***	2.58***	-0.95
	(0.20)	(0.61)	(1.47)
<b>Observations</b>	893	893	893
<b>R<sup>2</sup></b>	0.15	0.18	0.21
<b>Term period FEs</b>	No	No	No
<b>Party FEs</b>	No	No	No

Note. Dependent variable:  $\Delta$ Mayoral party vote share. Standard errors, clustered at municipality-level, in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

TABLE D4, ( $\Delta$ MAYORAL PARTY VOTE SHARE, PROPORTIONAL VOTE SHARE<sub>t-1</sub> & GENERAL AUDIT CRITIQUE)

	(1)	(2)	(3)	(4)
<b>Audit Critique</b>	-4.54***	-4.19***	-3.84**	-4.72***
	(1.60)	(1.61)	(1.61)	(1.56)
<b>Mayoral Party Vote Share<sub>t-1</sub></b>		-0.43***	-0.45***	-0.74***
		(0.09)	(0.09)	(0.11)
<b>Mayoral Party Resigns Mid-Term</b>			-8.79*	-7.73*
			(5.16)	(4.63)
<b>Fiscal Result</b>			0.00***	0.00**
			(0.00)	(0.00)
<b>Fiscal Result<sup>2</sup></b>			-0.00**	-0.00
			(0.00)	(0.00)
<b>Mean Income, Annual Growth (%)</b>			-0.19	-0.02
			(2.06)	(1.94)
<b>Unemployment, Annual Growth (%)</b>			-5.14*	-5.03*
			(2.70)	(2.66)
<b><math>\Delta</math>Municipal Tax Rate</b>			-5.62***	-4.07*
			(2.07)	(2.08)
<b>Intercept</b>	-2.69***	17.68***	20.13**	34.72***
	(0.77)	(4.35)	(8.70)	(8.41)
<b>Observations</b>	905	905	905	905
<b>R<sup>2</sup></b>	0.01	0.12	0.14	0.24
<b>Term period FEs</b>	No	Yes	Yes	Yes
<b>Party FEs</b>	No	No	No	Yes

Note. Dependent variable:  $\Delta$ Mayoral party vote share, proportional to vote share<sub>t-1</sub>. Standard errors, clustered at municipality-level, in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

TABLE D5, ( $\Delta$ MAYORAL PARTY VOTE SHARE & GENERAL AUDIT CRITIQUE, ONE OBSERVATION PER TERM)

	(1)	(2)	(3)	(4)
<b>Audit Critique</b>	-1.10**	-1.13***	-0.99**	-1.28***
	(0.43)	(0.42)	(0.41)	(0.40)
<b>Mayoral Party Vote Share<sub>t-1</sub></b>		-0.15***	-0.16***	-0.25***
		(0.02)	(0.02)	(0.02)
<b>Mayoral Party Resigns Mid-Term</b>			-2.51**	-2.10**
			(1.00)	(0.92)
<b><math>\Delta</math>Municipal Tax Rate</b>			-1.20*	-1.07
			(0.64)	(0.66)
<b>Fiscal Result</b>			0.00***	0.00**
			(0.00)	(0.00)
<b>Fiscal Result<sup>2</sup></b>			-0.00**	-0.00*
			(0.00)	(0.00)
<b>Mean Income, Annual Growth (%)</b>			0.13	0.22
			(0.50)	(0.48)
<b>Unemployment, Annual Growth (%)</b>			-1.13*	-0.99*
			(0.65)	(0.60)
<b>Intercept</b>	-1.62***	5.21***	5.02**	9.53***
	(0.20)	(0.76)	(1.95)	(1.91)
<b>Observations</b>	870	870	870	870
<b>R<sup>2</sup></b>	0.01	0.15	0.18	0.29
<b>Term period FEs</b>	No	Yes	Yes	Yes
<b>Party FEs</b>	No	No	No	Yes

*Note. Dependent variable:  $\Delta$ Mayoral party vote share. Standard errors, clustered at municipality-level, in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .*

TABLE D6, ( $\Delta$ MAYORAL PARTY VOTE SHARE & GENERAL AUDIT CRITIQUE, CONTROLLED FOR  $\Delta$ MAYORAL PARTY MUNICIPAL VOTE SHARE IN PARLIAMENTARY ELECTION)

	(1)	(2)	(3)	(4)
<b>Audit Critique</b>	-0.61*	-0.69**	-0.59*	-0.86***
	(0.34)	(0.34)	(0.34)	(0.33)
<b><math>\Delta</math>Mayoral Party Municipal Vote Share in Parliamentary Election</b>	0.71***	0.63***	0.63***	0.64***
	(0.03)	(0.03)	(0.03)	(0.03)
<b>Mayoral Party Vote Share<sub>t-1</sub></b>		-0.09***	-0.09***	-0.18***
		(0.02)	(0.02)	(0.02)
<b>Mayoral Party Resigns Mid-Term</b>			-0.74	-1.12
			(0.89)	(0.81)
<b>Fiscal Result</b>			0.00***	0.00***
			(0.00)	(0.00)
<b>Fiscal Result<sup>2</sup></b>			-0.00**	-0.00***
			(0.00)	(0.00)
<b>Mean Income, Annual Growth (%)</b>			-0.10	0.17
			(0.38)	(0.36)
<b>Unemployment, Annual Growth (%)</b>			-0.22	-0.10
			(0.46)	(0.43)
<b><math>\Delta</math>Municipal Tax Rate</b>			-1.50***	-1.98***
			(0.49)	(0.50)
<b>Intercept</b>	-0.60***	2.85***	3.29**	7.58***
	(0.18)	(0.64)	(1.46)	(1.49)
<b>Observations</b>	893	893	893	893
<b>R<sup>2</sup></b>	0.39	0.43	0.44	0.52
<b>Term period FEs</b>	No	Yes	Yes	Yes
<b>Party FEs</b>	No	No	No	Yes

*Note. Dependent variable:  $\Delta$ Mayoral party vote share. Standard errors, clustered at municipality-level, in parentheses.*

*\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .*

TABLE D7, ( $\Delta$ MAYORAL PARTY VOTE SHARE & ALTERNATE INDICATORS OF INSTITUTIONAL QUALITY)

	(1)	(2)	(3)	(4)	(5)	(6)
<b>Quality of Government-Index</b>	4.17**	6.37***				
	(1.73)	(1.54)				
<b>Application of Laws &amp; Rules</b>			4.15**	8.11***		
			(1.77)	(1.74)		
<b>Corruption Index</b>					-0.78	-0.35
					(1.83)	(1.48)
<b>Mayoral Party Vote Share<sub>t-1</sub></b>		-0.23***		-0.26***		-0.21***
		(0.04)		(0.04)		(0.04)
<b>Mayoral Party Resigns Mid-Term</b>		-1.49		-1.50		-1.13
		(1.33)		(1.39)		(1.24)
<b>Fiscal Result</b>		0.00		0.00		0.00
		(0.00)		(0.00)		(0.00)
<b>Fiscal Result<sup>2</sup></b>		-0.00		-0.00		-0.00**
		(0.00)		(0.00)		(0.00)
<b>Mean Income, Annual Growth (%)</b>		-0.19		-0.16		-0.37
		(0.96)		(0.96)		(0.92)
<b>Unemployment, Annual Growth (%)</b>		-0.39		-0.85		-0.82
		(1.18)		(1.09)		(1.12)
<b><math>\Delta</math>Municipal Tax Rate</b>		-2.14**		-2.47**		-2.19**
		(0.97)		(1.00)		(1.00)
<b>Intercept</b>	-6.53***	3.14	-6.49***	4.00	-3.87***	6.46*
	(1.06)	(3.45)	(1.07)	(3.44)	(0.84)	(3.44)
<b>Observations</b>	290	290	290	290	290	290
<b>R<sup>2</sup></b>	0.02	0.28	0.02	0.30	0.00	0.24
<b>Party FEs</b>	No	Yes	No	Yes	No	Yes

Note. Dependent variable:  $\Delta$ Mayoral party vote share. Indicators of institutional quality set to range between 0 and 1. Data for analyses of Quality of Government Index & Application of Law & Rules from 2012, data for analyses with Corruption Index from 2011. See appendix E for description of variables. Robust standard errors in parentheses.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

TABLE D8, (MAYORAL PARTY REELECTION & GENERAL AUDIT CRITIQUE)

	(1)	(2)	(3)	(4)
<b>Audit Critique</b>	0.57***	0.56***	0.57***	0.56***
	(0.09)	(0.09)	(0.10)	(0.10)
<b>Mayoral Party Vote Share<sub>t-1</sub></b>		1.07***	1.06***	1.09***
		(0.01)	(0.01)	(0.01)
<b>Mayoral Party Resigns Mid-Term</b>			0.06***	0.07***
			(0.04)	(0.04)
<b>Fiscal Result</b>			1.00	1.00
			(0.00)	(0.00)
<b>Fiscal Result<sup>2</sup></b>			1.00	1.00
			(0.00)	(0.00)
<b>Mean Income, Annual Growth (%)</b>			1.31	1.20
			(0.25)	(0.24)
<b>Unemployment, Annual Growth (%)</b>			0.93	0.92
			(0.22)	(0.22)
<b>ΔMunicipal Tax Rate</b>			0.65*	0.66*
			(0.15)	(0.15)
<b>Intercept</b>	2.56***	0.22***	0.12***	0.05***
	(0.24)	(0.06)	(0.09)	(0.04)
<b>Observations</b>	905	905	905	905
<b>Term period FEs</b>	No	Yes	Yes	Yes
<b>Party FEs</b>	No	No	No	Yes

*Note. Dependent variable: Mayoral party reelected. Results from logit estimation. Odds ratios displayed. To prevent Kalix municipality 2003-06 from exclusion from the model, Green Party ID changed to "Other party". Standard errors, clustered at municipality-level, in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$*

TABLE D9, (MAYORAL PARTY REELECTION & GENERAL AUDIT CRITIQUE, CONDITIONAL LOGIT ESTIMATION)

	(1)	(2)	(3)	(4)
Audit Critique	0.57***	0.52***	0.53***	0.51***
	(0.12)	(0.12)	(0.13)	(0.12)
Mayoral Party Vote Share <sub>t-1</sub>		1.02*	1.02	1.03
		(0.01)	(0.01)	(0.02)
Mayoral Party Resigns Mid-Term			0.09***	0.09***
			(0.06)	(0.07)
Fiscal Result			1.00***	1.00**
			(0.00)	(0.00)
Fiscal Result <sup>2</sup>			1.00**	1.00**
			(0.00)	(0.00)
Mean Income, Annual Growth (%)			1.33	1.25
			(0.37)	(0.35)
Unemployment, Annual Growth (%)			0.87	0.91
			(0.26)	(0.28)
ΔMunicipal Tax Rate			0.54*	0.58
			(0.18)	(0.20)
Observations	519	519	519	519
Municipalities	162	162	162	162
Term period FEs	No	Yes	Yes	Yes
Party FEs	No	No	No	Yes
Municipality FEs	Yes	Yes	Yes	Yes

*Note. Dependent variable: Mayoral party reelected. Results from logit estimation with fixed effects (command `xtlogit`, with option `fe` in Stata 14). Odds ratios displayed. To prevent Kalix municipality 2003-06 from exclusion from the model, Green Party ID changed to "Other party". Standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$*

TABLE D10, (MAYORAL PARTY REELECTION & GENERAL AUDIT CRITIQUE, CONTROLLED FOR MAYORAL PARTY VOTE SHARE<sub>t</sub>)

	(1)	(2)	(3)	(4)
Audit Critique	0.66**	0.59***	0.59***	0.69*
	(0.12)	(0.11)	(0.11)	(0.14)
Mayoral party vote share <sub>t</sub>	1.13***	1.14***	1.14***	1.28***
	(0.01)	(0.01)	(0.01)	(0.03)
Mayoral Party Resigns Mid-Term			0.08***	0.09***
			(0.06)	(0.07)
Fiscal Result			1.00	1.00
			(0.00)	(0.00)
Fiscal Result <sup>2</sup>			1.00	1.00
			(0.00)	(0.00)
Mean Income, Annual Growth (%)			1.62**	1.21
			(0.36)	(0.28)
Unemployment, Annual Growth (%)			1.38	1.44
			(0.36)	(0.41)
ΔMunicipal Tax Rate			0.75	0.82
			(0.19)	(0.23)
Intercept	0.06***	0.03***	0.01***	0.00***
	(0.02)	(0.01)	(0.01)	(0.00)
Observations	905	905	905	905
Term period FEs	No	Yes	Yes	Yes
Party FEs	No	No	No	Yes

*Note.* Dependent variable: Mayoral party reelected. Results from logit estimation. Odds ratios displayed. To prevent Kalix municipality 2003-06 from exclusion from the model, Green Party ID changed to "Other party". Standard errors, clustered at municipality-level, in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

TABLE D11, ( $\Delta$ GOVERNMENT VOTE SHARE & GENERAL AUDIT CRITIQUE)

	(1)	(2)	(3)	(4)
<b>Audit Critique</b>	-0.82**	-0.57	-0.52	-0.53
	(0.42)	(0.40)	(0.40)	(0.40)
<b>Government Vote Share<sub>t-1</sub></b>		-0.08***	-0.08***	-0.08***
		(0.02)	(0.02)	(0.02)
<b>Government Breakdown Mid-Term</b>			-0.61	-0.52
			(0.69)	(0.69)
<b>Mean Income, Annual Growth (%)</b>			1.16***	1.22***
			(0.39)	(0.40)
<b>Unemployment, Annual Growth (%)</b>			0.33	0.39
			(0.44)	(0.44)
<b>Fiscal Result</b>			0.00***	0.00***
			(0.00)	(0.00)
<b>Fiscal Result<sup>2</sup></b>			-0.00***	-0.00***
			(0.00)	(0.00)
<b><math>\Delta</math>Municipal Tax Rate</b>			-0.69	-0.74
			(0.60)	(0.60)
<b>Cross-ideological</b>				-0.24
				(0.46)
<b>Right</b>				-0.53
				(0.40)
<b>Constant</b>	-3.73***	2.10	-1.60	-1.74
	(0.20)	(1.30)	(1.72)	(1.75)
<b>Observations</b>	965	965	965	965
<b>R<sup>2</sup></b>	0.00	0.09	0.12	0.12
<b>Term period FEs</b>	No	Yes	Yes	Yes
<b>Party FEs</b>	No	No	No	Yes

Note. Dependent variable:  $\Delta$ Government vote share. Standard errors, clustered at municipality-level, in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

TABLE D12, ( $\Delta$ SUPPORTING PARTIES' VOTE SHARE & GENERAL AUDIT CRITIQUE)

	(1)	(2)	(3)	(4)
<b>Audit Critique</b>	0.28	0.22	0.16	0.16
	(0.34)	(0.33)	(0.33)	(0.33)
<b>Supporting Parties' Vote Share<sub>t-1</sub></b>		-0.11***	-0.12***	-0.13***
		(0.01)	(0.01)	(0.02)
<b>Government Breakdown Mid-Term</b>			1.55***	1.59***
			(0.58)	(0.58)
<b>Mean Income, Annual Growth (%)</b>			0.97***	0.98***
			(0.31)	(0.31)
<b>Unemployment, Annual Growth (%)</b>			0.84**	0.84**
			(0.34)	(0.34)
<b>Fiscal Result</b>			-0.00	-0.00
			(0.00)	(0.00)
<b>Fiscal Result<sup>2</sup></b>			0.00	0.00
			(0.00)	(0.00)
<b><math>\Delta</math>Municipal Tax Rate</b>			0.53	0.56
			(0.45)	(0.47)
<b>Cross-ideological</b>				0.64
				(0.44)
<b>Right</b>				0.03
				(0.46)
<b>Constant</b>	-2.24***	0.29	-2.78***	-2.87***
	(0.17)	(0.31)	(0.93)	(0.92)
<b>Observations</b>	844	844	844	844
<b>R<sup>2</sup></b>	0.00	0.09	0.11	0.12
<b>Term period FEs</b>	No	Yes	Yes	Yes
<b>Party FEs</b>	No	No	No	Yes

Note. Dependent variable:  $\Delta$ Supporting parties' vote share. Standard errors, clustered at municipality-level, in parentheses.  
 \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

TABLE D13, ( $\Delta$ MAYORAL PARTY VOTE SHARE & DISAGGREGATED AUDIT CRITIQUE)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b>Dependent variable:</b>	<b><math>\Delta</math>Mayoral Party Vote Share</b>								<b>Critique for Executive Board</b>	<b>Critique for Committee</b>
<b>Critique for Executive Board</b>	-1.12**	-0.67								
	(0.52)	(0.49)								
<b>Critique for Committee</b>			-0.33	-1.07**						
			(0.56)	(0.52)						
<b>Remark</b>					-0.84*	-0.76*				
					(0.44)	(0.43)				
<b>Dissuasion of Discharge</b>							-1.81**	-1.86**		
							(0.71)	(0.75)		
<b>Mayoral Party Vote Share<sub>t-1</sub></b>		-0.24***		-0.24***		-0.16***		-0.24***	-0.01	-0.05***
		(0.02)		(0.02)		(0.02)		(0.02)	(0.01)	(0.01)
<b>Mayoral Party Resigns Mid-Term</b>		-1.98**		-2.06**		-2.41***		-1.93**	0.31	-0.40
		(0.85)		(0.85)		(0.93)		(0.85)	(0.46)	(0.66)
<b><math>\Delta</math>Municipal Tax Rate</b>		-1.00		-1.07*		-1.15*		-1.05	0.59*	-0.13
		(0.65)		(0.64)		(0.62)		(0.64)	(0.31)	(0.31)
<b>Fiscal Result</b>		0.00***		0.00***		0.00***		0.00***	-0.00***	0.00
		(0.00)		(0.00)		(0.00)		(0.00)	(0.00)	(0.00)
<b>Fiscal Result<sup>2</sup></b>		-0.00**		-0.00**		-0.00***		-0.00**	0.00***	-0.00
		(0.00)		(0.00)		(0.00)		(0.00)	(0.00)	(0.00)
<b>Mean Income, Annual Growth (%)</b>		0.19		0.21		0.15		0.20	0.01	0.19
		(0.44)		(0.44)		(0.46)		(0.44)	(0.24)	(0.27)
<b>Unemployment, Annual Growth (%)</b>		-0.91*		-0.89*		-0.98*		-0.90*	-0.12	0.08
		(0.51)		(0.51)		(0.55)		(0.51)	(0.23)	(0.33)
<b>Constant</b>	-1.73***	8.99***	-1.84***	9.20***	-1.70***	4.77***	-1.77***	9.14***	-2.18**	-0.62
	(0.18)	(1.75)	(0.18)	(1.76)	(0.19)	(1.77)	(0.18)	(1.73)	(0.94)	(1.03)
<b>Observations</b>	905	905	905	905	905	905	905	905	905	905
<b>R<sup>2</sup></b>	0.00	0.28	0.00	0.28	0.00	0.17	0.01	0.28		

<b>Term period FEs</b>	No	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes
<b>Party FEs</b>	No	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes

*Note. To prevent parties with mayoral party Folkpartiet, Vänsterpartiet, and Miljöpartiet from being excluded from the models in column 9 and 10, these were changed to "Other party". Standard errors, clustered at municipality-level, in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .*

## Appendix E: Description of Data Sources

Variable	Source	Comment
<b>Audit Critique</b>		
<b>Remark</b>		
<b>Dissuasion of Discharge</b>	SALAR 2017/[ <i>author</i> ]	See Appendix A for description of the Swedish Municipal Audit Report Dataset.
<b>Critique for Committee</b>		
<b>Critique for Executive Board</b>		
<b>ΔMayoral Party Vote Share</b>		
<b>Mayoral Party Vote Share<sub>t-1</sub></b>		
<b>ΔGovernment Vote Share</b>	Statistics Sweden	Share of valid ballots. Disaggregated vote shares for local parties included in governments derived from the Swedish Election Authority (URL: <a href="http://www.val.se">http://www.val.se</a> ) for respective municipal term-period. To correspond with actual ruling conditions, results from the May 2011 extra election in Örebro municipality were chosen. Contrastingly, since only the election results are of interest for the 2014 election, Båstad municipality's results for the 2014 election were chosen, rather than those of the May 2015 extra election, as principally displayed by Statistics Sweden.
<b>Government Vote Share<sub>t-1</sub></b>	(internal variable reference code ME0104B2)	
<b>ΔSupporting parties' Vote Share</b>		
<b>Supporting parties' Vote Share<sub>t-1</sub></b>		
<b>Mayoral party ID</b>		
<b>Government Ideology</b>		Author's coding is based on a survey of local media reports of intra-term period power shifts and coalition breakdowns using the Mediearkivet database (Retriever n.d.), complementary searches on google.com, municipalities' web pages, and media sources listed in Wikipedia articles on municipal rule for
<b>Mayoral Party Reelected</b>	SALAR (personal communication, May 13, 2016); [ <i>name redacted for review</i> ]	2003-06 term (URL: <a href="https://sv.wikipedia.org/wiki/Lista_%C3%B6ver_kommun-_och_landstingsstyren_i_Sverige_2002%E2%80%932006">https://sv.wikipedia.org/wiki/Lista_%C3%B6ver_kommun-_och_landstingsstyren_i_Sverige_2002%E2%80%932006</a> ),
<b>Mayoral Party Resigns Mid-Term</b>	(personal communication, April 29, 2016);	2007-10 term (URL: <a href="https://sv.wikipedia.org/wiki/Lista_%C3%B6ver_kommun-_och_landstingsstyren_i_Sverige_2006%E2%80%932010">https://sv.wikipedia.org/wiki/Lista_%C3%B6ver_kommun-_och_landstingsstyren_i_Sverige_2006%E2%80%932010</a> ),
<b>Mayoral Party-Adjusted Term-Period</b>	author's own coding	2011-14 term (URL: <a href="https://sv.wikipedia.org/wiki/Lista_%C3%B6ver_kommun-_och_landstingsstyren_i_Sverige_2010%E2%80%932014">https://sv.wikipedia.org/wiki/Lista_%C3%B6ver_kommun-_och_landstingsstyren_i_Sverige_2010%E2%80%932014</a> ),
<b>Coalition-Adjusted Term Period</b>		and 2015-18 term (URL: <a href="https://sv.wikipedia.org/wiki/Lista_%C3%B6ver_kommun-_och_landstingsstyren_i_Sverige_2014%E2%80%932018">https://sv.wikipedia.org/wiki/Lista_%C3%B6ver_kommun-_och_landstingsstyren_i_Sverige_2014%E2%80%932018</a> )
Two idiosyncratic adjustments were made for the specific set of analyses herein: Audit critique was directed at a government that assumed power after July 1 <sup>st</sup> , 2012 in Åre municipality, while critique was directed at a government that lost power before July 1 <sup>st</sup> , 2008 in Färgelanda municipality. To avoid erroneously attributing critique to the out-		

		going and incoming governments, the criticized governments/parties were allotted these years.
		For incumbents that assume or leave power mid-term period, I use the mean difference between the year immediately preceding and the final year of their incumbency.
<b>ΔMunicipal Tax Rate</b>		Adjusted for transfer of taxes between municipality- and county-level (sources: all counties 2002-2012 [Statskontoret 2012], Jönköping county 2013/14 [URL: <a href="https://www.varnamo.se/download/18.1c6cca85154ef7d33698f2a/1466021593280/C4%20L%C3%A4nets%20skattesatser%2095-17%20160413.pdf">https://www.varnamo.se/download/18.1c6cca85154ef7d33698f2a/1466021593280/C4%20L%C3%A4nets%20skattesatser%2095-17%20160413.pdf</a> ]; Blekinge county 2013 [URL: <a href="https://www.scb.se/Statistik/OE/OE0101/2013A02/OE0101_2013A02_SM_OE18SM1301.pdf">https://www.scb.se/Statistik/OE/OE0101/2013A02/OE0101_2013A02_SM_OE18SM1301.pdf</a> ]; Dalarna county 2013 [URL: <a href="http://www.regiondalarna.se/wp-content/uploads/2014/03/Slutrapport-Ekonomi.pdf">http://www.regiondalarna.se/wp-content/uploads/2014/03/Slutrapport-Ekonomi.pdf</a> ]; Gävleborg county 2013 [URL: <a href="http://www.nordanstig.se/download/18.464bc9f3135cfbf2b459fc/1348011783039/Kommunstyrelsens%20arbetsutskott%20120322%20%C2%A7%C2%A7%2034-49.pdf">http://www.nordanstig.se/download/18.464bc9f3135cfbf2b459fc/1348011783039/Kommunstyrelsens%20arbetsutskott%20120322%20%C2%A7%C2%A7%2034-49.pdf</a> ]; Västerbotten county 2013 [URL: <a href="https://regionvasterbotten.se/halsa/fortsatt-tryggt-nar-kommunerna-tar-over/">https://regionvasterbotten.se/halsa/fortsatt-tryggt-nar-kommunerna-tar-over/</a> ]; Norrbotten county 2013 [URL: <a href="http://sverigesradio.se/sida/artikel.aspx?programid=98&amp;artikel=5132891">http://sverigesradio.se/sida/artikel.aspx?programid=98&amp;artikel=5132891</a> ]; Östergötland county 2014 [URL: <a href="https://wssext.regionostergotland.se/Politiska%20dokument/Regionstyrelsen/2013%20Landstingsstyrelsen/2013-01-30/2013-01-29%20Protokollsutdrag%20HSN%20och%20TN/HSN%20130129Protokollsutdrag%20%C2%A7%207%20.pdf">https://wssext.regionostergotland.se/Politiska%20dokument/Regionstyrelsen/2013%20Landstingsstyrelsen/2013-01-30/2013-01-29%20Protokollsutdrag%20HSN%20och%20TN/HSN%20130129Protokollsutdrag%20%C2%A7%207%20.pdf</a> ]; Västernorrland county 2014 [URL: <a href="http://kfvn.se/Filer/Socialtjanst/Avtalhemsljukvardversion-1.0.pdf">http://kfvn.se/Filer/Socialtjanst/Avtalhemsljukvardversion-1.0.pdf</a> ]).
<b>Municipal Tax Rate</b>	Statistics Sweden  (internal variable reference code OE0101D2)	Data for municipal tax rate before the first term (i.e. 2002) in Knivsta municipality (founded in 2003 by breaking off from Uppsala municipality) derived from the 2002 value for Uppsala municipality.
<b>Fiscal result</b>	Statistics Sweden through KOLADA (KPI: N03007)	Year-end result.
<b>Unemployment, Final Year</b>	Statistics Sweden & Arbetsförmedlingen through KOLADA (KPI: N00919)	Share of 18-64 year-old population openly unemployed or in activity grant program. Data from March.
<b>Unemployment, Annual Growth (%)</b>	Statistics Sweden & Arbetsförmedlingen through KOLADA (KPI: N00919)	Data for unemployment the year before the first term (i.e. 2002) missing for Knivsta municipality (founded in 2003 by breaking off from Uppsala municipality). Data from the first year in the term (i.e. 2003) used instead.
<b>Mean Income, Final Year (Logged)</b>	Statistics Sweden	Total earned income for full-year residents in Sweden, aged 16 years and over.
<b>Mean Income, Annual Growth (%)</b>	(internal variable reference code HE0110J7)	
<b>Population</b>	Statistics Sweden  (URL: <a href="http://www.scb.se/be0101">http://www.scb.se/be0101</a> )	
<b>Quality of Government Index</b>	Dahlström & Sundell 2013; Karlsson & Gilljam 2014	Additive index using questions 52a-52e & 53a-53e in the 2012 KOLFU Survey. Alpha=0.77. Data available for 2012.
<b>Application of Laws and Rules</b>	Svenskt Näringsliv (URL: <a href="http://www.foretagsklimat.se/enkatsvar">http://www.foretagsklimat.se/enkatsvar</a> )	Survey item, respondents local businesses. Available as excel document, by visiting sourced web page, choosing <i>kommunens myndighetsutövning</i> , followed by <i>tillämpning av lagar och regler</i> in the drop-down menu (checked Dec. 27, 2017). Data missing for 2014.

<b>Corruption Index</b>	Statskontoret 2012	Additive index of the extent of perceived corruption in seven sectors, according to local top level politicians and officials (school and child care; social services; technical administration; planning and building; culture and leisure; business sector and tourism; health care). Alpha=0.89. Data available for 2011.
<b>Newspaper Coverage</b>	TS Mediefakta	Data available for 2003-2010. 2011-2014 given 2010 values.
<b>Vote share, parliamentary election, National</b>	Statistics Sweden  (internal variable reference code ME0104B7)	Share of valid ballots.
<b>Vote Share, Parliamentary Election, by Municipality</b>	Statistics Sweden  (internal variable reference code ME0104B6)	

*Note. Unless otherwise stated, all data available for the full (2003-2014) sample period. Data derived from Statistics Sweden are publicly available from [www.scb.se](http://www.scb.se). Data derived from KOLADA are publicly available from [www.kolada.se](http://www.kolada.se). Data from TS Mediefakta are proprietary (contact <https://ts.se>). Data from the KOLFU Survey are available, subject to review by the principal investigators (see <https://spa.gu.se/forskning/publicerat/kolfu>).*

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