

# ELECTORAL DISCIPLINING IN AUTOCRACIES – THE CASE OF THE RUSSIAN DUMA

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## ABSTRACT

Can elections in autocracies discipline politicians? Elections are commonplace in electoral autocracies, yet we know little about how electoral incentives shape the representative behavior of politicians in parliament. To study constituency representation, I classify all speeches in the Russian State Duma from 1993 to present day with respect to whether a speech suggests a bill amendment favoring a local area. Russian deputies face stark differences in electoral incentives, as one half is elected in a single-member district, the other half on a federal list. I employ a regression-discontinuity design, exploiting that candidates are allowed to register on both lists, with the final seat determined by the district result. Consequently, for elected deputies who barely won/lost the district seat, their constituency changes abruptly, allowing me to identify the effect of electoral incentives on constituency representation. The paper finds a substantial and robust effect of electoral incentives on constituency representation: obtaining a single-member district seat increases the likelihood of suggesting amendments favoring a local area by approximately half a standard deviation. The results are robust to a range of specifications and push our understanding of nominally democratic institutions in electoral autocracies.

## INTRODUCTION

Though neither free nor fair, elections are widespread across the worlds' non-democratic regimes. After waves of authoritarian regime collapses in the 1980s and 1990s, electoral autocracies are now the predominant form of autocracy around. What distinguishes such regime type from democracy is not the occurrence of parliamentary

elections, which are contested vigorously. Instead, it is the systematic harassment of opposition candidates, and the prevalence of electoral fraud, clientelism, and biased media. In sum, such abuse of state resources skews the electoral playing field to an extent where democracy becomes unrecognizable (Levitsky and Way 2002, 2010).

For long, such elections were believed to be mere window dressing, but recent research suggest that elections provide an important channel through which regimes obtain information on distributive preferences (Malesky and Schuler 2011; Brancati 2014) and it limits power-sharing to the strongest parts of the opposition (Gandhi and Lust-Okar 2009). Not least, parliamentary bargaining between the regime and elected representatives of an opposition allows for cooptation of particular constituencies (Gandhi and Przeworski 2006; Gandhi 2008). Seminal contributions have identified how members of authoritarian parliaments actively represent outside constituencies. It has been shown how delegates in the Chinese National People's Congress – elected by provincial assemblies – successfully seek out district rewards (Truex 2016). Also delegates in the Vietnamese National Assembly are responsive to the needs of local constituents, particularly so when delegates are nominated by provincial electoral commissions and not central authorities (Malesky and Schuler 2010). Finally, others have pointed out how the election or appointment of business people into parliament seems to favor a different type of constituency: industry actors (Szakonyi 2018; Truex 2014). The literature has thus focused on parliamentary behavior in appointed parliaments or studied business candidates, where elections only decide between candidates with predefined constituencies. To date we have little evidence of whether electoral incentives in isolation influence on deputy behavior in electoral autocracies, where elections are heavily constrained.

To answer this question, I examine whether list affiliation for Russian deputies in the State Duma affects the degree to which they suggest bill amendments contain-

ing favorable regulation or investments to their constituency. Russia has a mixed-electoral system in place where 225 deputies are elected in a single-member district and 225 on a federal list, providing deputies with stark differences in constituency type and, consequently, electoral incentives. I construct an original dataset of all parliamentary speeches from 1993 to 2018, totaling 165,000, and train a classifier to detect whether a given speech seeks to favor a local constituency. Causal effects of elections in electoral autocracies are hard to come by. Institutions are inherently endogenous to regime strategies (Pepinsky 2014) and to obtain variation in institutions, studies often rely on cross-country comparisons (see e.g. Boix and Svoboda 2013). To address endogeneity, I exploit that candidates are allowed to register and campaign on both lists simultaneously (dual candidates), with the final seat determined by the district result. I identify such candidates among all 40,000 registered candidates since 1993, and employ a regression-discontinuity design exploiting that for district margins of victory close to zero, the type of constituency change discontinuously. Whereas deputies who barely win the district are elected by a small, geographically concentrated district, deputies who barely lose the district are elected by a nationwide, and geographically dispersed, constituency. In turn, the as-if random assignment of list affiliation provides exogenous variation in electoral incentives. My results indicate that electoral incentives strongly matters for parliamentary behavior even in electoral autocracies: deputies do cater up the constituency they happen to be elected in. Deputies barely elected in a single-member district are 5-7 percentage points more likely to flag local distributive issues, compared to deputies barely elected on the federal list. This compares to more than half a standard deviation in the dependent variable.

The results are consistent with two underlying, but not mutually exclusive, mechanisms, which I intend to explore in later versions. First, despite the weakened po-

litical accountability in electoral autocracies due to clientelism, electoral fraud, and biased media (Stokes 2005) electoral dynamics have not suffocated and deputies still rely on their constituencies. Despite the limitations of elections, Russian voters are still able to discipline office seeking deputies. Second, district deputies may be accountable to regional elites. Historically, district deputies have had strong ties to regional governors and their political machines (White and Kryshstanovskaya 2011). Governors have thus provided funds and the organizational network for getting district deputies elected (Hale 1999; 2005). Such symbiosis could be expected to result in local representation when the local machine calls in favors in parliament.

Russia is a particularly interesting case for studying the effects of electoral incentives on deputy behavior in electoral autocracies. Russia has held regular, multiparty parliamentary elections with five-year intervals throughout the post-soviet period. Still, elections are characterized by the prevalence of clientelism (Frye et al.; 2019), intimidation (Frye et al. 2019a), electoral fraud (Enikolopov et al. 2013), and biased media (Enikolopov et al. 2011). Russia has thus come to be a go-to example for an electoral authoritarian regime (Levitsky and Way 2002). In addition, though lawmaking in the State Duma is controlled by the executive (Noble and Schulman 2018; Remington 2007, 2014) and party elites (Remington 2008), deputies do have means to influence distributive politics, e.g. by suggesting amendments (Krol 2017; Noble 2017, but see also Szakonyi 2018). In addition, the mixed-member electoral system allows for a comparison of deputies elected in different types of constituencies, holding constant political history and culture.

The article makes several contributions to the literature on nominally democratic institutions in electoral autocracies. By illustrating how electoral incentives matter for the extent to which deputies represent local districts, the results broaden our understanding of how particular constituencies are co-opted in authoritarian parlia-

ments (Szakonyi 2018; Malesky and Schuler 2010). In turn, showing that electoral incentives matter for the pursuit of distributive amendments at the micro level, the paper supports previous suggestions that authoritarian parliaments acts as forum for bargaining over distributive outcomes between the regime and powerful societal interests (Gandhi 2008; Gandhi and Przeworski 2007). Finally, results nuance the literature on political accountability when elections are manipulated (Stokes 2005) by suggesting that elections can, even then, discipline politicians. Insights also add to the literature on agent shirking in autocracies. It has been convincingly shown that just like their democratic counterparts, office appointments in autocracies revolve around the challenge of delegating competencies to agents with diverging interests (Reuter and Buckley 2015; Reuter and Robertson 2012). As ruling elites rely on deputies to convey information on citizen grievances (Truex 2016), regimes face a similar problem in terms of monitoring deputy effort. This paper suggests that elections could be one means for leaders to nurture deputy effort, by allowing local constituencies to monitor and possibly sanction politician performance. Doing this, the disciplining power of elections add yet another layer to the trade-offs faced by authoritarian regimes pursuing strategies to remain in power (see e.g. Egorov and Sonin 2011; Svoboda 2012).

The article continues as follows: the first section reviews the trade-off arising from allowing elections to discipline deputies. The second section theorize on why deputies even in the presence of manipulation rely on their constituency. The third section introduces the data and the speech classifier. The fourth section describes double inclusion as a regression-discontinuity design. The fifth section presents results and the final section concludes.

## **AUTOCRATIC ELECTIONS AND DEPUTY REPRESENTATION**

In the ideal type democracy, the electorate selects good candidates; candidates with favorable traits and good track records, with the expectation that they will perform well when in office, by promoting the interests of their constituencies. If the electorate makes the wrong call, regular elections allow voters to expel deputies who swayed too far from their intended path. The anticipation of such sanctioning can itself incentivize candidate representative effort (Fearon 1999; Besley and Prat 2006).

However, elections in autocracies are, per definition, not ideal types. Although elections will be frequent and recognizable institutions, such as electoral commissions, seemingly control the process, the playing field is heavily skewed. Evidence from micro-level data suggests that incumbents' abuse of state resources for campaigning purposes, such as vote-buying, can lead to perverse accountability, where voters come to rely on candidates' scant handouts (Stokes 2005). Such perverse accountability is only intensified by state apparatus' intimidation of voters (Frye et al. 2019a; Frye et al. 2014; Mares and Young 2016; 2018) as well as outright electoral fraud. In addition, media is often heavily biased (Levitsky and Way 2002) in itself threatening accountability (Alt et al. 2002; Alt and Lowry 2010). Following this perspective, politicians have little incentive to cater up to their constituencies in electoral autocracies.

On the other hand, a growing literature suggests how elections prolong authoritarian regimes' time at the pinnacle of power. This literature, often founded on cross-country comparisons, suggests that elections are not inconsequential (e.g. Gandhi 2008; Boix and Svobik 2013). In fact, elections are important to the regime's ability to acquire information. Sincere electoral signals are required by the regime to meet social discontent in society, and to gauge the actual strength of the opposition (Bran-

cati 2014). In addition, elections allow regimes to only co-opt the strongest parts of the opposition into parliament (Gandhi and Lust-Okar 2009). In the words of Reuter and Szakonyi (2019, p. 2) legislators "help the regime mobilize the masses, win elections, administer territory". Following this, micro-level evidence does suggest that deputies do in fact seek to bring resources to their constituencies (Desposato 2001; Malesky and Schuler 2010; Truex 2016; Krol 2017. See also Szakonyi 2018). In this way, deputies balance on a knife's edge between representing their local constituencies' interests while providing valuable information to top central leaders (Malesky et al. 2012). What unifies the explanations stressing the effects of institutions, is that for the dynamic to play out, elections need a certain degree of disciplining power over deputies (Brancati 2014). If this was not so, the signals received from the electoral results would be useless, and it is unclear how bargaining with representatives in parliament could co-opt important constituencies in society.

This paper seeks to bridge these strands of literature by suggesting that deputies are in fact driven by electoral incentives, and that they do seek to promote such interests in parliament. This leads to one key hypothesis: just like in democracies, politicians cater to their constituency. However, the argument has important scope conditions. It is true for issues, such as distributive politics, that are not questioning the very foundation of the regime (Krol 2017; Truex 2016). For such issues specifically, the regime has a strong interest in learning about constituency interests (Gandhi and Przeworski 2006). To continue enjoying the spoils of office, deputies will thus be careful to represent their constituencies within the boundaries laid out by the regime (Malesky et al. 2012).

Whether elections can discipline politicians becomes particularly interesting in electoral autocracies, as a parliamentary seat here appeals to adverse types of political candidates. In Russia, the combination of constrained lawmaking, with some,

limited influence, have nurtured a situation, where gaining a parliamentary seat is believed to be attractive primarily because of its perks: office is connected to private material benefits, including the ability to issue permits, and the opportunity to nurture political connections (Szakonyi 2018; Reuter and Szakonyi 2019; Noble and Schulman 2018; see also Truex 2014). In addition, Russian deputies cannot face charges, be arrested, detained or questioned unless caught in the action (Sadchikov 1999; Remington 2008; Reuter and Robertson 2014). This has led to a situation where kleptocracy and corruption in Russian politics is widespread (Shleifer and Treisman 2005). Popular press describes the situation as criminals and shady businessmen trying to infiltrate the State Duma, and that parliamentary seats primarily act as a shield against prosecution (Hoffman 1999; Myers 2006). Thus, arguing that elections can still matter in electoral autocracies, is simultaneously to argue that elections are able to discipline bad types of politicians.

## **THEORETICAL FRAMEWORK**

I theorize the process from the perspective of an incumbent deputy who is deciding whether to cater up to the constituency for which the deputy is elected. Following numerous studies of legislators, I assume that the overarching goal for incumbent deputies is to remain in office. A seat in an authoritarian parliament presents ample opportunity to enjoy private rents. This is because the rule of law in autocracies is generally weaker than in democracies, but equally important because distribution of spoils is perhaps the primary purpose of authoritarian parliaments (Gandhi and Przeworski 2006; Gandhi 2008; Reuter and Szakonyi 2019). Such spoils can include, but are not limited to, business connections (Szakonyi 2018; Truex 2014). Deputies may also be ideologically driven even though the scope for lawmaking is limited. I do not to treat ideology explicitly, as ideologically driven deputies may pose a threat to

the regime (Truex 2016), in turn weakening their chances of receiving future spoils. As deputies are office seeking, it follows naturally that they pursue re-appointment. Though not necessarily so in autocracies generally (see Malesky and Schuler 2010) in electoral autocracies this per definition happens through political elections.

Such electoral campaign will not be free and fair. Several manipulate strategies are used by the regime to hinder perfectly competitive elections, but this does not mean that deputies do not find it in their interest to cater up to constituencies. First, the most direct means with which the regime can tamper with electoral results is through post-election electoral fraud (Enikolopov et al. 2013). However, fraud and manipulation are only feasible strategies if the candidate is already in a tight election, where the intervention can be kept hidden to the public eye (). Even then, deputies know that the regime will be hesitant using such strategy, as it risks providing the opposition with a focal point for collective action (). Finally, only regime affiliated politicians can plausibly expect such assistance, not the (systemic) opposition more generally. This way, though fraud will be pervasive, little indicates that fraud frees deputies from catering up to constituencies.

Secondly, clientelism, the individual targeting of voters with benefits in return for political support, is often pervasive in electoral autocracies (Blattman et al. 2019; Frye et al. 2019b). However, recently the literature on clientelism has come to suggest that vote buying – seeking to alter the voting choice – is in fact turnout buying of core voters (Nichter 2008). That is, clientelism works to encourage already sympathetic voters by compensating for the time and costs of turning up on election day. In the midst of discussions on how clientelism can be effective under secret ballot, It has even been argued that clientelism conveys information to voters about the deputy’s intended future goods distribution. Handing out benefits prior to elections act as a credible signal to voters that if a particular candidate were to reach office,

constituency services are to follow (Kramon 2016). Consistent with these accounts, it is necessary for deputies to be responsive to their constituency post-election in order to nurture a sufficient foundation of loyal supporters.

Finally, even though the regime undeniably uses fraudulent strategies to get loyal deputies elected, relying solely on the regime for reelection has a downside for the deputy. For a given deputy it is never a given that the regime leadership sees it in their interest to assist. Regimes carefully consider who to co-opt (Gandhi and Przeworski 2006), by only co-opting the most powerful parts of society (Gandhi and Lust-Okar 2009). It is well-established that regimes use granular electoral data to monitor the performance of subordinates (Larreguy et al. 2016; Rueda 2017; Bowles et al. 2019), and this has also been suggested with respect to parliamentarians (Brancati 2014). This way, electoral results themselves provide the regime leadership with a signal of the popularity, and thus strength, of deputies. That way, deputies will have strong incentives to create a good electoral result independently of the regime, in order to showcase the necessity of their cooptation.

To conclude, though deputies may rely on the regime leadership for assistance through fraudulent means, such manipulative strategies rely on the deputy already having a significant following, and the deputy will need to signal strength to the leadership through the electoral result in order to remain relevant. Thus, taken together, deputies have strong electoral incentives to cater to their constituency even in electoral autocracies. It is this expectation that will be tested in the following.

## **DATA AND RESEARCH DESIGN**

The central source of data on registered candidates is from the Russian Central Election Commission. The government gazette publishes the lists of candidates as they become official in the months preceding each election. 10,500 candidates registered

in single-member districts and 32,000 candidates on party lists have been collected.<sup>1</sup> Data on speeches and voting records were obtained through the State Duma's official api.<sup>2</sup> Official transcripts of all speeches are available from 1993. The Russian Duma stores more than 50,000 documents corresponding to the population of transcribed points on the agenda. After extracting speeches from each unique deputy on each issue, the data set consists of 165,000 unique deputy-topic speeches.

### **List Affiliation**

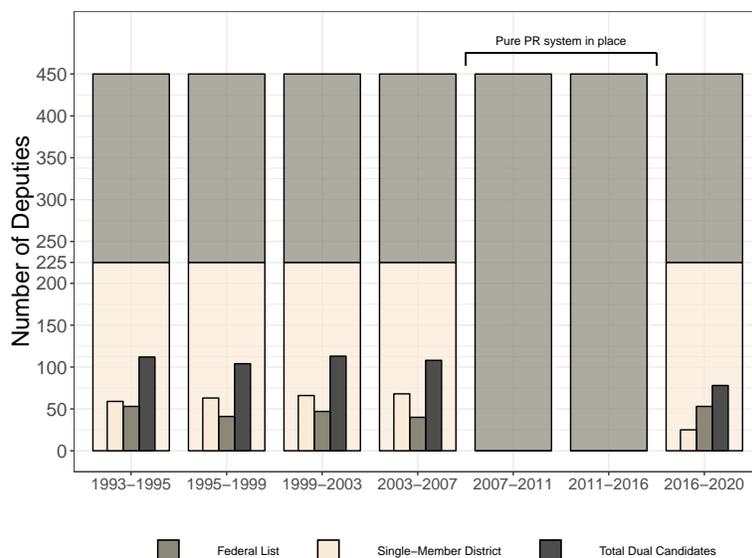
Russia presents an ideal electoral setup to measure the effect of electoral incentives, as deputies in the Duma face markedly different constituency demands. In the Russian State Duma, 225 deputies are elected in a first-past-the-post system in single-member districts and 225 deputies elected on a federal, closed-list proportional representation list. Seats are filled through separate ballots: that is, Russian voters cast two votes, one for each list (Remington and Smith 1996). As shown in Figure 1, the system was in place from 1993-2005 and reintroduced prior to elections in 2016. In the period 2007-2016 a pure PR system was in place.

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<sup>1</sup>Data on candidate lists in the 1993 election was kindly made available by Thomas Remington.

<sup>2</sup>See [www.api.duma.gov.ru](http://www.api.duma.gov.ru).

Figure 1: Deputies and List Affiliation in The Russian Duma



Due to differently sized constituencies, district deputies are incentivized to have a strong territorial (i.e. local constituency) focus in order to gain re-election. In contrast, in Russia, federal list deputies are accountable to, if not the national electorate, then larger regions (Sieberer 2010; Thames Jr 2001). The mix of larger district magnitudes and the fact that federal list lists are closed tend to divert the interest of federal list deputies from local constituencies towards the will of party elites. It follows that federal list deputies will be hesitant to advance the interests of narrow, local constituencies, as such behavior will not go unpunished by the neglected parts of the constituency or by party elites. Single-member district deputies do not face such constraints. On the contrary, district deputies are encouraged to cater up to geographically defined, smaller constituencies. The dynamic is further enforced by the insight that federal list constituencies are not necessarily concentrated geographically (Stratmann and Baur 2002).

Neither should incentives from one list affect incentives on the other. Whereas

the closed-list nature of the federal list system provides party elites with tight control over access, parties exert little control in the single-member districts (Sieberer 2010; Bawn and Thies 2003; Moser 1999). Additionally, district votes do not determine ranking on the federal list. The two branches are also not interlocked into one system by compensatory seats. Instead, seats are allocated according to the results for each list separately (Haspel et al. 1998; Thames Jr 2001). The setup presents a unique opportunity to compare how list affiliation affects deputy behavior in parliament, holding constant confounders, including political culture, political institutions, levels of strategic voting, and history (Crisp 2007; Moser 2001).

### **Constituency Representation**

To measure constituency representation, I study whether district deputies are more likely to suggest distribution towards specific districts. Russian deputies have some sway over political outcomes (Szakonyi 2018), specifically by suggesting amendments to law proposals which (re)distribute resources to their local constituencies. Studying the Duma, Noble (2017, p. 510) finds that "during legislative passage, spending is – on average – redistributed away from administration, defense, security and the economy to areas such as housing, education and social policy". The author notes that such amendments can be seen as help to regime-loyal deputies in order to claim credit for spending beneficial to their nominal constituents. This is supported by Krol (2017, p. 451), concluding that "loyal [Russian] MPs systematically and substantially amend politically salient pieces of legislation". In this respect, the Russian Duma is no different from other authoritarian parliaments (see e.g. Malesky and Schuler 2010; Schuler and Malesky 2014; Truex 2017; Desposato 2001). Importantly, by narrowing in on deputy speeches – which are easily accessible to deputies – the measure does not conflate incentives and e.g. ability by measuring actual distribution in the district.

The measure thus avoids picking up success per se.

Local constituency representation is conceptualized along two dimensions. The distributive dimension is understood broadly as favorable economic regulations or investments. The local dimension stresses that deputies have to explicitly mention a particular area (e.g. city, region) as the recipient. Though it is not a coding requirement that the deputy is in fact referring to her own constituency, close readings of the training set indicates that this is most often the case. Examples include demands for investments following severe de-industrialization in the North Caucasus and flagging consequences of a pension reform for regional equalization in payouts in the Ural mountains region. Figure A.2 and Figure A.3 (both in appendix) shows that speech activity is stable over time, and spread across deputies.

### Classifying Suggested Amendments

A random forest model was trained on a subset of 4.000 speeches hand coded in their original language by a student assistant. For this subset, a dummy indicates whether the text conveys a local distributive interest (1) or not (0). The remaining documents were then classified using the trained model. Following standard procedures, the documents were stemmed and stop words as well as numbers were excluded. Speeches have an average length of 250 words. Classifier performance is visible in Table 1.

Table 1: Classifier Performance

	True Negative	True Positive
Predicted Negative	3525	287
Predicted Positive	64	124
Accuracy = 0.95		Balanced Accuracy = 0.64
True negative rate = 0.98		True positive rate = 0.30

The model is evaluated using out-of-bag error. The model is conservative in classifying texts: conditioned on correct classification of almost all true negatives, it correctly predicts a third of all true positives, with an overall accuracy of 95 percent, and a balanced accuracy of 64 percent. It is worth noting that in the handcoding, a local distributive interest is present in 10 percent of the 4,000 randomly sampled documents. Though not accounting for everything that is going on in the Duma, this observation does indicate that a substantial part of speech-activity is dedicated to flagging local interests.<sup>3</sup>

A more elaborate validation procedure is planned for later versions, but some simple face validity checks suggests that the model is able to capture central aspects of the concept. First, the Duma chairman scores much lower on the measure than do both federal list and district deputies. This is to be expected, as most of the chairman's utterances concern procedural aspects. It is thus comforting that the chairman speaks about local distributive preferences only 0.52 percent of the time, with federal list deputies speaking of local issues 4.6 times as often (mean 2.4\*\*\* percent) and district deputies 6.3 times as often (mean 3.2\*\*\* percent). Secondly, cabinet members – with no direct constituency – has a mean of 0.94, with elected deputies mentioning local interests 2.8 times as often (mean 2.65\*\*\* percent). Though neither of these observations prove the model, the opposite result would be a cause for concern.

### **Regression Discontinuity Design**

Observing a difference in the extent to which deputies suggest amendments favoring local districts across list affiliation tells us little about how elections matter. Anecdotal evidence from Russia suggests that business candidates with deceitful motivations

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<sup>3</sup>I intend to include a table illustrating the coding of the two dimensions in speeches in later versions.

register in single-mandate districts (Hoffman 1999), and it may be that district seats appeal to candidates driven by local issues, without elections themselves having any disciplinary power (Gagliarducci et al. 2011). Thus, any differences risk resulting from particular candidate types systematically selecting into one of the tiers. To isolate the effect of electoral incentives on behavior, this paper takes advantage of an original approach to gauging the effect of authoritarian institutions: the institutional phenomenon of double inclusion. Double inclusion permits parliamentary candidates to register on both electoral lists simultaneously. Final list affiliation for such dual candidates is determined exclusively by the margin of victory (MV) in the single-member district. The list assignment rule is deterministic: for  $MV_i > 0$ , a dual candidate is assigned the district seat and the federal list seat is freed up. Conversely, for  $MV_i < 0$  the dual candidate is assigned the federal list seat *if* her rank on the federal party list is sufficient. Gagliarducci et al. (2011) use a similar setup to parse out electoral effects in Italy, a consolidated democracy. However, the authors compare federal list candidates to all district candidates. In contrast, this paper is able to identify dual candidates on both lists, and estimations will be limited to such dual deputies.

The intuition behind double inclusion as a regression discontinuity, illustrated in Figure 2, is that dual candidates have selected into both electoral tiers, thus holding constant selection. Variation in deputy behavior across lists will then be explained by differing incentives emanating from varying demands from constituencies, not deputy characteristics per se. The plausibility of this assumption increases, as  $MV_i \rightarrow 0$ . Dual candidates immediately above and below the electoral threshold become each other's counterfactual: they are identical in terms of characteristics, the sole difference being the list they are eventually elected on. In total, 515 dual candidates have been identified across five convocations.

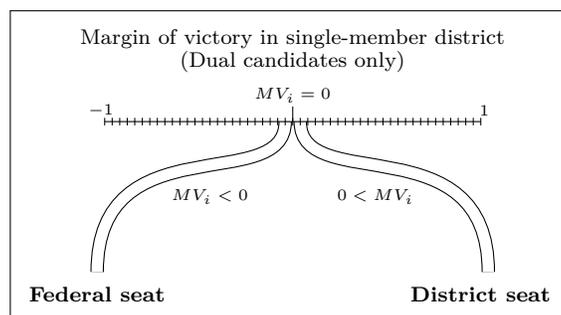


Figure 2: Dual candidates and as-if random variation in electoral incentives

Table 2 shows the distribution of the margin of victory for all 515 dual candidates identified. Worth noting is the lower share of federal list candidates close to 0. The asymmetry in treatment assignment could be caused by district deputies having to win only the district seat, whereas federal list deputies need to both lose the district seat *and* enjoy a rank on the party list sufficient for election. However, balance tests below suggests that federal list rank is in fact balanced across dual candidates in single-member districts and on the federal list.

Table 2: Distribution of the Margin of Victory for Dual Candidates

	Observations		Share Federal List
	Deputies	Speeches	
$MV_i$	515	40,285	.45
$MV_i \in [-.3, .3]$	396	29,687	.44
$MV_i \in [-.2, .2]$	291	22,122	.40
$MV_i \in [-.1, .1]$	158	11,497	.33
$MV_i \in [-.05, .05]$	67	4,406	.28
$MV_i \in [-.01, .01]$	14	1,109	.07

*\*Note: data included covers all years from 1993-2018 except the period 2007-2016.*

### Design Assumptions

A few issues merit further attention. First, one assumption deems that even though deputies are only marginally elected on a particular list, their incentives with respect to their constituency change abruptly. This seems plausible as cultivating two markedly different constituencies is costly (Kunicová 2008). In addition, significant incumbent advantages urges politicians to focus on the district, where they stand the best chance of winning: the seat they currently claim. This is supported in the data. Accounting for the forced list changes with the elimination and reintroduction of the mixed system, 82 percent of dual candidates reclaiming office in the subsequent election, won their seat on the same list.

A more pressing issue concerns deputy sorting. The intuition in the design mimics a close-election regression-discontinuity design, where the random component of an electoral result makes up the chance process. Whether such random component is in fact random in a non-democratic regime is a non-trivial issue. One concern is that candidates affiliated with the regime can make use of fraudulent behavior to reach  $MV_i > 0$ , if the election is deemed a close-call. Such strategy frees up a federal list seat in addition to the single-member district seat. Consequently, the party gains an extra deputy. Figure 3 addresses this issue, by plotting the distribution of margin of victories. As can be seen in Panel A, there is a jump even in close proximity to the threshold, such that more candidates barely win than lose a district. This questions the as-if random assignment for the sample of dual candidates as a whole.

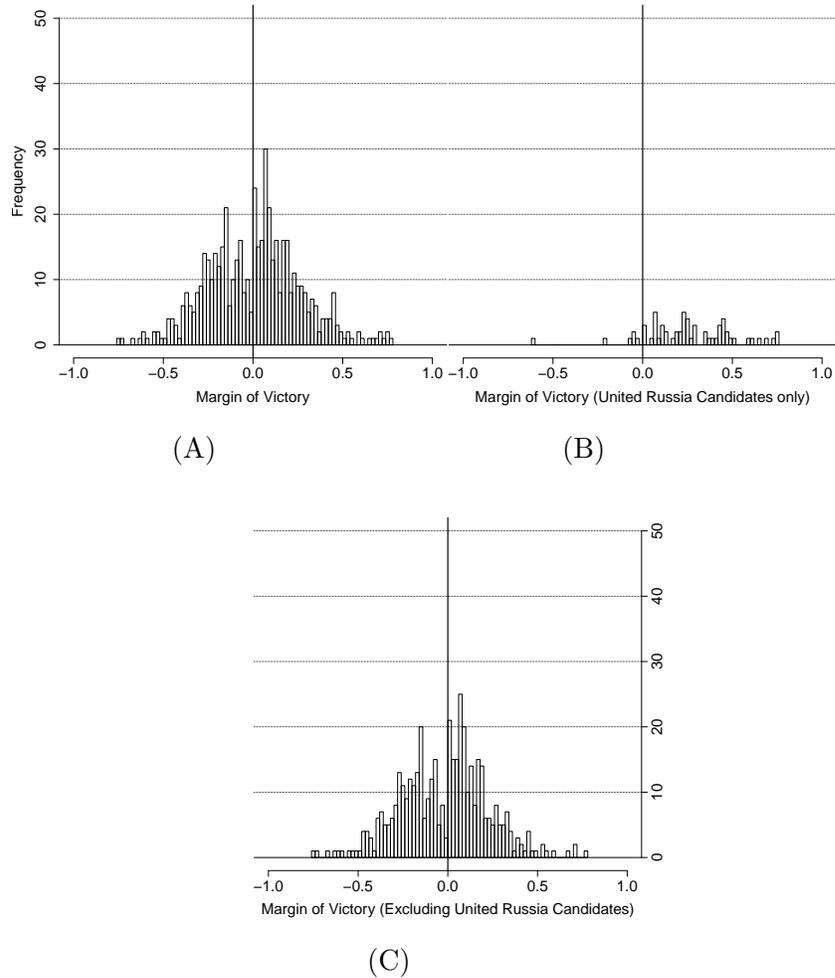


Figure 3: Sorting Around Threshold

*Note: Bins each make up two pct. point. Solid line indicates cutoff value.*

Panel B explores what drives this jump in density by plotting the margin of victory only for United Russia candidates – the party closest affiliated with the Kremlin. If list affiliation close to the threshold is truly a chance process, one would hope to have one’s luck tried on the United Russia ballot: only rarely do they lose even very tight races. More plausibly, it seems that the accumulation of Putin’s power after

2000, and the emergence of United Russia as the regime party has made the ruling elite able to either affect the electorate in very close races, or affect the electoral results directly.<sup>4</sup> In either case, it violates the as-if random assignment to district representation and United Russia candidates are thus excluded. However, even excluding United Russia candidates, Panel C still indicates possible sorting. In future versions, I will explore this further, by excluding the most powerful parties prior to the birth of United Russia. Though it does not completely solve the issue (parties may promote particular type of candidates), it bears mentioning that results are robust to party fixed effects. Figure A.1 in appendix shows continuous distributions for non-regime parties.

Finally, Table 3 explores the balance on observables. If list assignment is truly as-if random for margins of victory close to zero, co-variables are discontinuous in expectation: that is, a dummy variable taking on a value of 1 for  $MV_i > 0$ , and 0  $MV_i < 0$  should not be correlated with background variables. Generally, there seems to be no systematic pre-treatment differences across co-variables close to the threshold. Some imbalance is present on gender closer to the threshold. However, the estimate changes sign for different bandwidths. As reported results below are unchanged across these samples, gender can hardly account for the effect. Table A.1 in appendix illustrates balance when United Russia Candidates are excluded. The picture in Table A.1 is similar.

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<sup>4</sup>As it is the case even very close to the threshold, it does not seem to be caused by particularly successful candidates selecting into United Russia.

Table 3: Balance on Observables

Bandwidth	Seniority					
	1	0.5	0.3	0.2	0.1	0.05
<i>SMD</i>	-356.3** (157.2)	-473.6* (268.9)	-489.0 (391.2)	-477.2 (618.3)	-576.8 (648.2)	70.5 (560.5)
N	515	487	396	291	158	67
District size (k)						
<i>SMD</i>	-4.3 (12.9)	-2.7 (10.7)	-13.5 (15.3)	-9.7 (15.8)	-6.7 (29.3)	3.8 (34.4)
N	515	487	396	291	158	67
Rank, PR list						
<i>SMD</i>	8.5 (6.6)	9.9 (7.7)	8.3 (6.4)	9.0 (7.4)	-6.7 (8.7)	2.2 (2.4)
N	406	392	324	245	126	54
District Location						
<i>SMD</i>	-12.8** (5.8)	-12.0* (6.4)	-2.1 (10.5)	3.5 (16.0)	18.6 (13.3)	-4.6 (39.4)
N	515	487	396	291	158	67
Woman						
<i>SMD</i>	0.02 (0.1)	0.004 (0.1)	-0.1 (0.1)	-0.1* (0.04)	0.2** (0.1)	0.3 (0.4)
N	515	487	396	291	158	67
PR Regional Sublist						
<i>SMD</i>	0.01 (0.04)	0.04 (0.05)	0.02 (0.05)	0.0001 (0.1)	0.04 (0.1)	0.1 (0.2)
N	515	487	396	291	158	67

Notes: \*p<.1; \*\*p<.05; \*\*\*p<.01.

All models of the form  $y = SMD + MV + SMD * MV$ , but only the first term is reported. District size proxied as total votes in the district. District number is used for district location. Seniority is measured as time since first day in parliament, in days. PR Regional Sublist refers to the regional aspect of the federal list. Std errors clustered at the deputy-convocation level. Fixed effects at the convocation level.

## ESTIMATION

In order to isolate the sanctioning effect of elections, the following equation is estimated, restricted to dual candidates, *DC*, only:

$$R_i = \beta_1 SMD_i + \beta_2 MV_i + \beta_3 SMD_i \times MV_i + \varepsilon \quad , \quad i \in DC \quad (1)$$

$R_i$  is the responsiveness of deputy  $i$  as measured in speeches,  $SMD_i$  takes the value of 1 if  $MV_i > 0$ , and  $MV_i$  is the margin of victory in the single member district, defined as the difference between the vote share of  $i$  and the vote share of the district runner-up, given in percentages of total votes cast. In equation 1,  $\beta_1$  is the coefficient of interest, expected to be positive: deputies elected in single-member districts are expected to represent their local constituency to a higher extent. Equation (1) is estimated with convocation fixed effects and standard errors clustered at the deputy-convocation level, and is estimated for varying bandwidths  $MV_i \in [-b, +b]$ . A modification of equation (1) will also be estimated where all majoritarian candidates are included, as well as dual federal list candidates. The modified version guarantees that the mean for the treatment group is calculated with higher precision. Results are consistent across specifications.

For robustness, later versions of the paper will also estimate the following difference-in-difference model

$$R_i = \beta_4 L_i + \beta_5 RE_i + \beta_6 L_i \times RE_i + \varepsilon \quad , \quad i \in DC \quad (2)$$

Where  $L_i$  is the list affiliation of deputy  $i$  and  $RE_i$  indicates observations after the election reform abandoning single-member districts, instead introducing a pure PR electoral system. In equation 2,  $\beta_6$  is the coefficient of interested, expected

to be negative: district deputies suddenly in need of catering up to a nation-wide constituency should be less inclined post-reform to suggest amendments favoring local constituencies.

## RESULTS

Table 4 estimates the effect for dual candidates of being elected in a single-member district vis-a-vis the federal list on the likelihood that a deputy suggests initiatives favoring local constituencies. Equation 1 is being estimated for three distinct subsets of the data: for all dual candidates, excluding candidates from United Russia, and excluding candidates after 2000. The latter specification is intended to capture president Putin's rise to power, as Putin became acting president on December 31 1999. Interpreting the table as a whole, the effect of district affiliation is robust across all three subsets, as well as across all but the smallest bandwidth. Though effect sizes vary slightly, district deputies are generally between 2-4 percentage points more likely to suggest local amendments. For intuition, effect sizes vary in the range of 15-25 percent of a standard deviation in the dependent variable.

Table 4: Effect of Electoral Incentives on Suggested Amendments Favoring Districts (Speech level)

	All Double Included Candidates					
Bandwidth	1	0.5	0.3	0.25	0.1	0.05
Share, PR	0.42	0.43	0.41	0.4	0.31	0.25
<i>SMD</i>	0.022*** (0.005)	0.026*** (0.006)	0.021*** (0.008)	0.020** (0.008)	0.032** (0.014)	0.007 (0.029)
$\sigma_y$	0.167	0.167	0.168	0.168	0.177	0.19
$\bar{y}_0$	0.023	0.023	0.02	0.02	0.021	0.015
Unique Deputies	515	483	393	342	157	67
N	28,842	27,268	21,520	18,939	8,686	3,436
	Excluding United Russia					
<i>SMD</i>	0.025*** (0.006)	0.027*** (0.006)	0.024*** (0.008)	0.022*** (0.008)	0.029** (0.015)	0.006 (0.029)
$\sigma_y$	0.167	0.168	0.168	0.168	0.18	0.192
$\bar{y}_0$	0.023	0.023	0.02	0.02	0.021	0.015
Unique Deputies	449	431	356	311	143	62
N	26,861	25,493	20,374	18,053	8,229	3,339
	Excluding Years After 2000					
<i>SMD</i>	0.041*** (0.012)	0.042*** (0.012)	0.035** (0.016)	0.038** (0.017)	0.100** (0.049)	0.080 (0.082)
$\sigma_y$	0.192	0.192	0.19	0.189	0.211	0.257
$\bar{y}_0$	0.029	0.029	0.024	0.024	0.029	0.023
Unique Deputies	215	212	188	172	80	34
N	12,016	11,904	9,932	9,212	4,100	1,417

Notes: \* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$ .

All models of the form  $y = SMD + MV + SMD * MV$ , but only the first term is reported. Std errors clustered at the deputy-convocation level. Fixed effects at the convocation level. Only dual candidates included.

Effect sizes are also rather consistent across specifications, though the third row indicates that electoral incentives influenced stronger on deputy behavior in the 1990s, consistent with the general belief that elections in this period were more competitive. For the smallest bandwidth,  $|MV| < 0.05$ , results fail to reach statistical significance. However, the narrow bandwidths include only few unique deputies (approximately 50) and a minority of these are elected on the federal list. The sign of the coefficient is identical across bandwidths. Table A.2 in appendix includes all

majoritarian candidates in addition to the federal list dual candidates, and Table A.3 has fixed effects at the party level. Effect sizes and levels of significance are practically identical.

Table 5 estimates the same specifications again, but now at the deputy, not speech, level. The dependent variable is instead the mean number of speeches given by a deputy throughout the convocation suggesting to favor a local district. Overall, the results are unchanged, though it does strengthen the effect slightly: the effect now varies between 3-5 percentage points, or approximately half a standard deviation in the dependent variable. Again, as above, district affiliation has a stronger effect in the 1990s but in contrast to above statistically significant effects are now estimated even for the narrowest bandwidths. Interestingly, for the narrowest bandwidths, the effect size compares to one standard deviation in the dependent variable. Such effect size is to be expected in a democratic setting, as federal list deputies have little interest in promoting the interests of local areas, but the results do suggest that Russian elections could matter more than the public perception would have them to.

Table 5: Effect of Electoral Incentives on Suggested Amendments Favoring Districts (Deputy-Convocation level)

	All Double Included Candidates					
Bandwidth	1	0.5	0.3	0.25	0.1	0.05
Share, PR	0.42	0.43	0.41	0.4	0.31	0.25
<i>SMD</i>	0.031*** (0.009)	0.036*** (0.010)	0.029** (0.012)	0.033** (0.013)	0.039** (0.019)	0.054** (0.023)
$\sigma_y$	0.064	0.066	0.066	0.065	0.086	0.061
$\bar{y}_0$	0.023	0.024	0.02	0.02	0.023	0.014
N	515	483	393	342	157	67
	Excluding United Russia					
<i>SMD</i>	0.035*** (0.010)	0.037*** (0.012)	0.032** (0.014)	0.036** (0.014)	0.041** (0.020)	0.058** (0.025)
$\sigma_y$	0.067	0.068	0.068	0.066	0.089	0.063
$\bar{y}_0$	0.024	0.024	0.021	0.021	0.025	0.014
N	449	431	356	311	143	62
	Excluding Years After 2000					
<i>SMD</i>	0.050*** (0.017)	0.049*** (0.018)	0.056** (0.023)	0.063*** (0.023)	0.071** (0.034)	0.098** (0.042)
$\sigma_y$	0.083	0.083	0.087	0.083	0.112	0.078
$\bar{y}_0$	0.023	0.024	0.023	0.022	0.032	0.016
N	215	212	188	172	80	34

Notes: \*p<.1; \*\*p<.05; \*\*\*p<.01.

All models of the form  $y = SMD + MV + SMD * MV$ , but only the first term is reported. Std errors clustered at the deputy-convocation level. Fixed effects at the convocation level. Dependent variable is the likelihood that a deputy speaks about local, distributive preferences across the whole convocation. Only dual candidates included.

## The Role of Political Competition

Figure 4 helps to understand the estimate as a local average treatment effect (LATE), estimated for deputies with small margins of victory, i.e. elected in competitive districts. The two plots include and exclude United Russia candidates, respectively. Margins of victory are along the x-axis and the probability that a given speech suggests a local amendment is along the y-axis. Observations for which margin of victory exceeds zero (the right side of each plot) are elected in the single-member

districts following the list assignment rule. The effect of being assigned a district seat vis-a-vis a federal list seat on the likelihood to service local constituencies is thus illustrated by the difference in means close to zero. Consistent with above, this effect is approximately 3-4 percentage points.

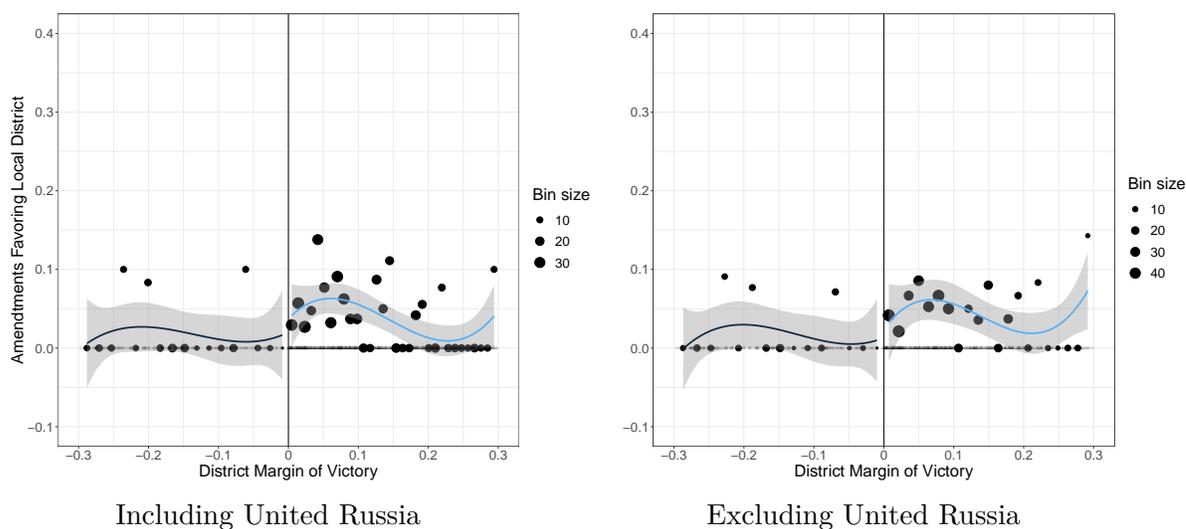


Figure 4: Graphical Depiction of the Regression-Discontinuity

*Note: All district candidates and federal list dual candidates included*

Importantly, Figure 4 suggests that district deputies with large margins of victory come to look much more like federal list deputies: they are much less concerned with district interests (small binned means), compared to deputies in competitive districts (larger binned means). The story, then, seems to be one of competition. However, this in no way deems the effect inconsequential, as Russian district elections are characterized by a noticeable degree of competition. Figure 5 plots the distribution of margin of victory across all candidates running in a district (left) and between the district deputy who won the district and the runner up (right). One could expect that elections in authoritarian countries are rarely close-calls and that the regression-discontinuity estimates an effect of list affiliation for idiosyncratic deputies. However,

such expectation would be uncalled for. Whereas the left panel is mechanically right skewed (unless only two candidates compete, fewer candidates will win than lose), the right panel in Figure 4 illustrates that tight district races are not uncommon.

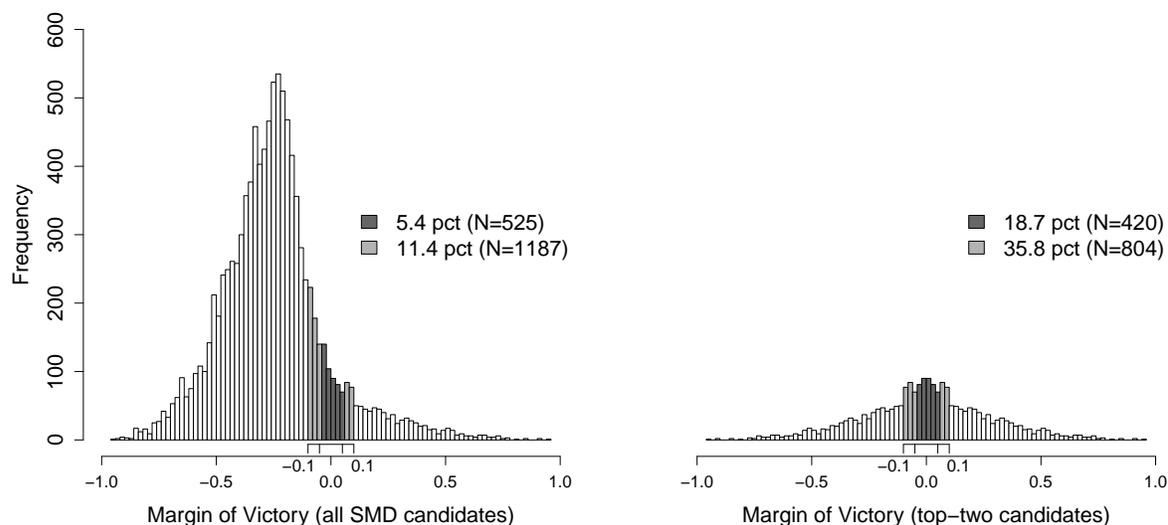


Figure 5: Competition Across Single-Member Districts

Figure 4 does raise important questions as to the scope conditions of the argument presented above, and later versions will seek to address these issues. Particularly, if district competition proxy for electoral integrity, it is not obvious whether Figure 5 suggests that even fraudulent elections can incentivize politicians *or* that district elections with the highest integrity are able to incentivize deputies. In addition, in a different context, it has been shown that political competition itself results in negative selection of bad type candidates – proxied as criminal backgrounds – who are less likely to register and run in competitive districts in India (Shaukat 2019). Anecdotal evidence from Russia suggests that wealthy Russian businessmen seeking a Duma seat for power and influence (Szakonyi 2018) register in remote single-mandate

districts where they stand a better chance of winning. As a consequence, I risk that the effect I am able to estimate is generalizable only to good type candidates running in competitive districts.

One way to get around this is to causally identify the effect of district competition on the likelihood that a candidate suggests amendments favoring local constituencies. That way, I would be able to show that competition, irrespective of how bad type candidates strategically register in particular districts, matter for responsiveness. To do this, I intend to use a shift-share instrument to leverage how a party's nationwide shifts in voter support (after candidate registration) affect local competition non-monotonically. As an example, a positive shift in United Russia's overall popularity increases competition in constituencies where voters typically prefer the opposition, but decreases competition in United Russia strongholds (see e.g. Goldsmith-Pinkham et al. 2019; Shaukat 2019). I can use this variation to identify the effect of district competition on the likelihood that a candidate suggests amendments favoring his/her local district. A positive effect here suggests that competition incentivizes deputies. This would support that the effect of sanctioning identified above is not solely generalizable to good candidates in clean elections.

Finally, Figure 4 opens up for a discussion of *who* deputies are responsive to. Specifically regional political machines (campaign apparatuses organized around regional governors), previously played an important role in Russian politics. Throughout the 1990s, regional governors (but also large, regional based corporations, see Hale 2005) were believed to be amongst the most important political actors in Russia, controlling local industry, bureaucracy and courts. Regional campaign organizations often help mobilize voters and thereby promote preferred district candidates running for a seat in the State Duma (Hale and Orttung 2003). The importance of political machines is most clearly proven by the electoral reform of May 2005, which was

organized by president Putin to weaken regional elites (White and Kryshstanovskaya 2011). This poses the question, if district deputies are really responsive, not to voters, but to regional elites?<sup>5</sup> Figure 4 provides a preliminary indication that this is not what is driving the responsiveness of district deputies. Studying the Russian regional machines, Hale (2005, p. 181) proxies their strength by the vote share of the district candidate backed by the governor. In such scenario, district deputies with the largest margins of victory (not the smallest as per Figure 4), are agents of the strongest political machines and should, in turn, push the machine's interests more actively. I hope to pursue this question further.

### **Wider Implications of Electoral Incentives**

Though parliamentary speeches provide one mechanism for deputies to pursue local representation, it is not the sole mechanism. Having identified effects of electoral incentives on speech content, it seems plausible that electoral incentives also affect other aspects of parliamentary work believed to affect constituencies, such as the work in committees. In addition, while tracing differences across electoral branches provided a nice methodological framework to causally identify an effect of electoral systems, it is important to bear in mind that the results do not suggest that federal list deputies are not themselves driven by constituency demands. To the contrary, federal list deputies are likely also driven by a need to cater up to constituencies, though such constituencies differ.

To investigate this empirically, Table A.5 and Table A.6 in appendix re-estimates Equation 1, but replaces the left hand side with two measures of parliamentary effort: speech activity and voting abstention, respectively. Recall how measuring

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<sup>5</sup>Such story complicates the picture, without necessarily downplaying the importance of voters. District deputies were often popular in the regions and they usually knew the problems of their electorate and territory and took part in the elections in order to resolve them (White and Kryshstanovskaya 2011). Locally founded deputies also tended to believe that what was good for the local elite was good for the district (Hale 2005, p. 165).

local amendments in speeches was set up specifically to appeal to district deputies, thereby nudging differences in electoral incentives. However, if electoral incentives also matter for federal list deputies, speeches may be used actively by federal list deputies, although for different ends. Following this logic, we do not expect to see an effect of being single-member district deputy on effort exerted in parliament. Though some specifications in Table A.5 do suggest that single-member district deputies speak more in the Duma, particularly for smaller bandwidths, results are not robust. Across a range of specifications, only few specifications are (marginally) significant. In addition, the sign of the coefficient is rather volatile, at times suggesting single-member district deputies speak more and other times less. Turning to Table A.6<sup>6</sup> and absence during voting, results show that district deputies in fact have a higher absence rate during voting than do federal list deputies, though results fail to reach statistical significance for bandwidths of 0.1 and below. One explanation for this may be that district deputies are often conducting constituency service in their districts. Across specifications, district deputies are absent 7-14 percentage points more often than federal list candidates. Russian deputies are often absent from voting, and so the effect size is approximately one-fourth of a standard deviation in absence. The results above could suggest that federal list deputies are themselves incentivized to pursue the interests of their constituencies,

Though results do not provide conclusive evidence to rule out differences in effort across electoral incentives, the above taken together suggests that the importance of elections for incentivizing deputy responsiveness may be substantial.

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<sup>6</sup>Currently, data is limited to years from 2000 and onward.

## DISCUSSION AND CONCLUDING REMARKS

To summarize, the study traces constituency responsiveness in parliamentary speeches, specifically in terms of economic favoritism. Even if the law-making ability of Russian deputies is limited, deputies, sometimes successfully, seek to favor their constituencies through suggesting amendments to bills. In order to parse out the effect of electoral sanctioning, the study takes advantage of the Russian mixed-electoral system, where 225 deputies are elected in single-member districts, and 225 are elected on a federal list. If elections were to matter, we would expect the varying size of constituencies to result in stark differences in deputy behavior. Candidates campaigning for a seat in the Russian State Duma can register and run on both lists simultaneously, with the final seat determined by the margin of victory in the single-member district. Double inclusion provides a framework for identifying the effect of list affiliation, by comparing double included district deputies barely elected in the single-member district, to double included federal list candidates who almost, but eventually did not, win the district. The identifying assumption is that these deputies are each other's counterfactual, identical in all other respects than list affiliation.

Doing this, the study finds substantial and robust effects of being marginally elected in a district compared to on the federal list. Effects sizes vary from 25-50 percent of a standard deviation in the dependent variable, and in some specifications even reaching one standard deviation. The results are robust across a variety of bandwidths, across different fixed effects specifications, at different units of analysis, for excluding United Russia candidates, as well as for different time periods. Importantly, the effect is a local average treatment effect, and it is identified for candidates in competitive districts. However, such races are not uncommon in Russia.

Finding that deputies do cater up to their constituency contributes to our un-

derstanding of nominally democratic institutions in electoral autocracies. A growing literature suggests that elections and parliaments in autocracies provide important channels of information to the regime. This suggests that such institutions work much like their democratic counterparts, though under an umbrella of authoritarian control. Showing that deputies exert effort in order to bring back resources to the constituency they happen to represent, the results illustrate that channel of information. Results also suggest that some political accountability exist in electoral autocracies, though it by no means indicate that such mechanism is equally strong in autocracies.

The results from the article have policy implications. Promoting elections even in settings where the executive still has the final word may have actual, distributive consequences, by incentivizing deputies to promote citizen responsiveness in parliament. Such disciplining is called for in settings where politicians may seek office primarily for enriching themselves. However, building in previous literature democracy promotion initiatives will need to be aware that such efforts may simultaneously strengthen the executive's hold on office for the very same reason: improved goods distribution.

Finally, the Russian case draws interesting perspectives to the trade-offs faced by authoritarian regimes seeking to prolong their rule. Deputies walk a fine line between representing their constituency and abiding by the unwritten rules of the regime. In Russia, this balanced seems to have tipped. Specifically, nearing the end of the 1990s deputies were perceived too be close to regional elites. Consequently, on May 18 2005, in a move orchestrated by president Vladimir Putin, Russia adopted an electoral reform abandoning the single-member districts altogether, instead replacing the mixed-member system with a pure proportional-list system (Moraski 2007; Remington 2008; Wilson 2009). Though the mixed-member system was reinstated

prior to the parliamentary elections in 2016, it is generally believed that the move sought to weaken regional elites, who were believed to exert too much influence over district deputies, eventually making district deputies uncontrollable (Wilson 2010; Golosov 2017). This goes to show the complexity of achieving the – for the regime – optimal institutional balance.

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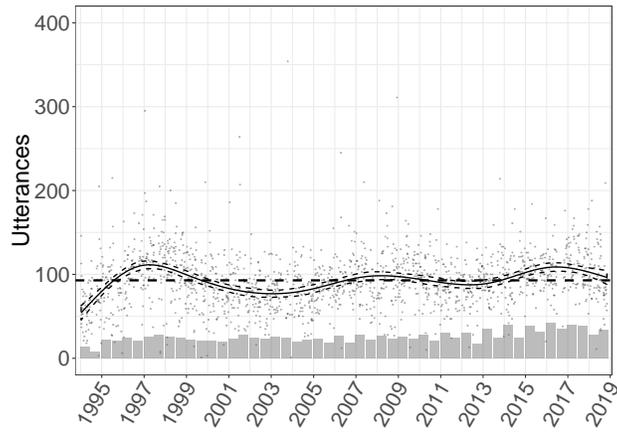


Figure A.2: Speech Activity Across Period of Investigation

### Appendix

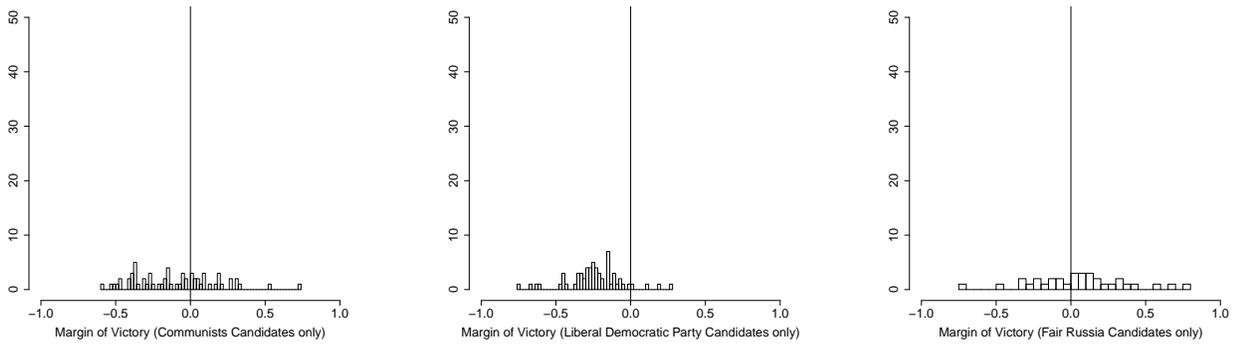


Figure A.1: Sorting Around Threshold

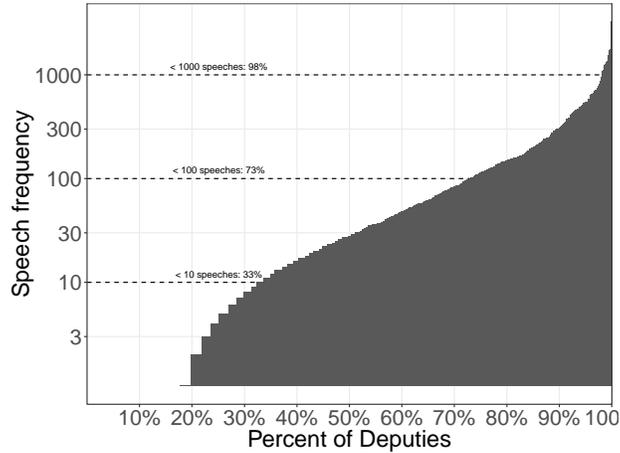


Figure A.3: Speech Activity Across Period of Investigation

Table A.1: Balance on Observables - Excluding United Russia

Bandwidth	Seniority					
	1	0.5	0.3	0.2	0.1	0.05
$SMD_{mv} > 0$	-312.4** (156.9)	-425.4 (289.1)	-512.5 (444.7)	-524.7 (717.9)	-455.5 (798.3)	223.0 (836.9)
N	440	421	345	259	139	59
	District size					
$SMD_{mv} > 0$	-6,123.1 (13,868.5)	-6,928.3 (8,058.7)	-24,913.3*** (7,299.0)	-25,744.9*** (6,713.5)	-25,905.1 (35,053.3)	-11,502.6 (24,737.3)
N	440	421	345	259	139	59
	Rank, PR list					
$SMD_{mv} > 0$	9.1 (6.6)	10.8 (7.6)	9.0 (6.3)	10.3 (7.6)	-5.4 (9.6)	3.4 (2.1)
N	377	365	302	231	118	48
	District Location					
$SMD_{mv} > 0$	-10.5** (5.0)	-12.5** (5.4)	-1.7 (12.3)	5.8 (16.8)	21.9 (21.0)	0.2 (37.7)
N	440	421	345	259	139	59
	Woman					
$SMD_{mv} > 0$	0.1 (0.1)	0.03 (0.1)	-0.04 (0.1)	-0.1 (0.05)	0.3* (0.1)	0.1 (0.3)
N	440	421	345	259	139	59

Notes: \*p<.1; \*\*p<.05; \*\*\*p<.01. All models of the form  $y = \alpha + \beta_1 x + \beta_2 x^2 + \beta_3 x^3 + \dots$ , but only the first term is reported. District size proxied as total votes in the district. District number is used for district location. Seniority is measured as time since first day in parliament, in days. Std errors clustered at the deputy-convocation level. Fixed effects at the convocation level.

Table A.2: Effect of Electoral Incentives on Suggested Amendments Favoring Districts (Speech level)

	All Double Included Candidates					
Bandwidth	1	0.5	0.3	0.25	0.1	0.05
Share, PR	0.19	0.19	0.19	0.18	0.13	0.09
<i>SMD</i>	0.020*** (0.004)	0.023*** (0.005)	0.019*** (0.006)	0.017*** (0.006)	0.030** (0.013)	-0.005 (0.027)
$\sigma_y$	0.168	0.168	0.17	0.17	0.179	0.184
$\bar{y}_0$	0.023	0.023	0.02	0.02	0.021	0.015
Unique Deputies	1160	1068	849	757	381	185
N	53,671	50,430	40,402	36,693	17,977	7,804
	Excluding United Russia					
<i>SMD</i>	0.022*** (0.004)	0.023*** (0.005)	0.019*** (0.006)	0.017*** (0.006)	0.024* (0.012)	-0.005 (0.027)
$\sigma_y$	0.168	0.169	0.171	0.171	0.18	0.186
$\bar{y}_0$	0.023	0.023	0.02	0.02	0.021	0.015
Unique Deputies	841	808	687	624	333	162
N	45,743	43,486	36,189	33,261	16,836	7,323
	Excluding Years After 2000					
<i>SMD</i>	0.040*** (0.010)	0.042*** (0.011)	0.027* (0.014)	0.030** (0.015)	0.079* (0.045)	0.046 (0.077)
$\sigma_y$	0.192	0.192	0.193	0.193	0.206	0.228
$\bar{y}_0$	0.029	0.029	0.024	0.024	0.029	0.023
Unique Deputies	445	439	395	371	202	98
N	23,390	22,915	19,819	18,763	9,880	3,915

Notes: \*p<.1; \*\*p<.05; \*\*\*p<.01.

All models of the form  $y = SMD + MV + SMD * MV$ , but only the first term is reported. Std errors clustered at the deputy-convocation level. Fixed effects at the convocation level. All Majoritarian and double included federal list candidates included.

Table A.3: Effect of Electoral Incentives on Suggested Amendments Favoring Districts (Speech level)

	All (Majoritarian and Dual Included)					
Bandwidth	1	0.5	0.3	0.25	0.1	0.05
Share, PR	0.2	0.21	0.21	0.2	0.14	0.1
<i>SMD</i>	0.019*** (0.004)	0.024*** (0.005)	0.019*** (0.006)	0.015** (0.006)	0.015 (0.010)	0.016 (0.014)
$\sigma_y$	0.168	0.168	0.17	0.17	0.179	0.184
$\bar{y}_0$	0.023	0.023	0.02	0.02	0.021	0.015
Unique Deputies	1160	1068	849	757	381	185
N	53,499	50,259	40,295	36,613	17,968	7,796
	Excluding United Russia					
<i>SMD</i>	0.021*** (0.005)	0.024*** (0.005)	0.019*** (0.006)	0.015** (0.007)	0.016 (0.010)	0.017 (0.014)
$\sigma_y$	0.168	0.169	0.171	0.171	0.18	0.186
$\bar{y}_0$	0.023	0.023	0.02	0.02	0.021	0.015
Unique Deputies	841	808	687	624	333	162
N	45,571	43,315	36,082	33,181	16,827	7,315
	Excluding Years After 2000					
<i>SMD</i>	0.040*** (0.008)	0.042*** (0.009)	0.038*** (0.012)	0.033*** (0.013)	0.039 (0.026)	0.051 (0.045)
$\sigma_y$	0.192	0.192	0.193	0.193	0.206	0.228
$\bar{y}_0$	0.029	0.029	0.024	0.024	0.029	0.023
Unique Deputies	445	439	395	371	202	98
N	23,380	22,905	19,812	18,757	9,878	3,913

Notes: \*p<.1; \*\*p<.05; \*\*\*p<.01.

All models of the form  $y = SMD + MV + SMD * MV$ , but only the first term is reported. Std errors clustered at the deputy-convocation level and fraction fixed effects. All Majoritarian and double included federal list candidates included.

Table A.4: Effect of Electoral Incentives on Suggested Amendments Favoring Districts (Deputy-Convocation level)

All Double Included Candidates						
Bandwidth	1	0.5	0.3	0.25	0.1	0.05
Share, PR	0.19	0.19	0.19	0.18	0.13	0.09
<i>SMD</i>	0.027*** (0.006)	0.033*** (0.008)	0.031*** (0.008)	0.031*** (0.009)	0.041*** (0.013)	0.042** (0.017)
$\sigma_y$	0.071	0.072	0.071	0.072	0.082	0.079
$\bar{y}_0$	0.023	0.024	0.02	0.02	0.023	0.014
N	1,158	1,066	848	756	380	185
Excluding United Russia						
<i>SMD</i>	0.033*** (0.006)	0.036*** (0.008)	0.030*** (0.009)	0.030*** (0.009)	0.044*** (0.014)	0.050*** (0.017)
$\sigma_y$	0.07	0.071	0.072	0.073	0.08	0.079
$\bar{y}_0$	0.024	0.024	0.021	0.021	0.025	0.014
N	839	806	686	623	332	162
Excluding Years After 2000						
<i>SMD</i>	0.046*** (0.011)	0.047*** (0.011)	0.049*** (0.014)	0.046*** (0.015)	0.065*** (0.025)	0.077*** (0.027)
$\sigma_y$	0.085	0.085	0.088	0.087	0.095	0.091
$\bar{y}_0$	0.023	0.024	0.023	0.022	0.032	0.016
N	441	435	392	368	200	98

Notes: \*p<.1; \*\*p<.05; \*\*\*p<.01.

All models of the form  $y = SMD + MV + SMD * MV$ , but only the first term is reported. Std errors clustered at the deputy-convocation level. Fixed effects at the convocation level. Dependent variable is the likelihood that a deputy speaks about local, distributive preferences across the whole convocation. All Majoritarian and double included federal list candidates included.

Table A.5: Effect of Electoral Incentives on Effort I: Speech Activity

Bandwidth	Baseline					
	1	0.5	0.3	0.25	0.1	0.05
<i>SMD</i>	-2.2 (10.5)	-8.5 (12.1)	-16.1 (13.9)	-22.3 (15.5)	27.0 (26.1)	-3.6 (22.1)
$\sigma_y$	71	72	72	73	62	60
$\bar{y}_0$	63	61	59	58	66	38
N	1,158	1,066	848	756	380	185
Only Dual Candidates						
<i>SMD</i>	7.7 (11.6)	1.3 (13.6)	-2.7 (15.2)	-7.6 (17.0)	60.1** (28.5)	27.5 (25.4)
$\sigma_y$	74	75	71	71	75	75
$\bar{y}_0$	63	61	59	58	66	38
N	510	483	393	342	157	67
Excluding United Russia						
<i>SMD</i>	-2.0 (10.9)	-8.7 (12.7)	-15.9 (14.4)	-22.3 (16.4)	33.0 (26.1)	-4.4 (22.0)
$\sigma_y$	79	79	77	77	64	62
$\bar{y}_0$	64	62	60	59	69	40
N	839	806	686	623	332	162
Excluding United Russia & Only Dual Candidates						
<i>SMD</i>	8.1 (12.3)	0.7 (14.5)	-3.2 (16.2)	-9.0 (18.3)	63.6** (29.7)	29.6 (26.5)
$\sigma_y$	77	77	73	73	77	78
$\bar{y}_0$	64	62	60	59	69	40
N	449	431	356	311	143	62
Excluding Years After 2000						
<i>SMD</i>	6.6 (17.9)	14.5 (22.3)	-14.6 (16.0)	-19.9 (17.7)	40.6* (24.2)	32.0 (20.6)
$\sigma_y$	78	77	70	71	58	51
$\bar{y}_0$	55	55	45	45	52	17
N	441	435	392	368	200	98
Excluding Years After 2000 & Only Dual Candidates						
<i>SMD</i>	22.6 (19.1)	28.9 (23.3)	-1.3 (17.8)	-6.0 (19.5)	58.0** (27.7)	62.4** (28.3)
$\sigma_y$	77	77	67	68	65	52
$\bar{y}_0$	55	55	45	45	52	17
N	215	212	188	172	80	34

*Notes:* \* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$ . All models of the form  $y = SMD + MV + SMD * MV$ , but only the first term is reported. Std errors clustered at the deputy-convocation level. Speech activity measured as the sum of speeches for each convocation.

Table A.6: Effect of Electoral Incentives on Effort II: Voting Absence

Bandwidth	Baseline					
	1	0.5	0.3	0.25	0.1	0.05
<i>SMD</i>	0.06* (0.03)	0.07** (0.04)	0.10** (0.04)	0.10** (0.05)	0.12 (0.09)	0.11 (0.20)
$\sigma_y$	0.22	0.22	0.23	0.24	0.25	0.25
$\bar{y}_0$	0.44	0.44	0.44	0.43	0.37	0.34
N	1,071	984	783	698	353	177
Only Dual Candidates						
<i>SMD</i>	0.07** (0.04)	0.09* (0.04)	0.14** (0.06)	0.14** (0.06)	0.13 (0.10)	0.07 (0.19)
$\sigma_y$	0.24	0.24	0.25	0.25	0.26	0.29
$\bar{y}_0$	0.44	0.44	0.44	0.43	0.37	0.34
N	449	425	346	301	141	63
Excluding United Russia						
<i>SMD</i>	0.07** (0.03)	0.07* (0.04)	0.11** (0.05)	0.12** (0.05)	0.14 (0.10)	0.11 (0.19)
$\sigma_y$	0.25	0.25	0.25	0.26	0.26	0.27
$\bar{y}_0$	0.44	0.44	0.44	0.43	0.37	0.34
N	762	731	627	572	310	155
Excluding United Russia & Only Dual Candidates						
<i>SMD</i>	0.08* (0.04)	0.08* (0.05)	0.14** (0.06)	0.14** (0.06)	0.14 (0.11)	0.06 (0.20)
$\sigma_y$	0.25	0.26	0.26	0.26	0.27	0.3
$\bar{y}_0$	0.44	0.44	0.44	0.43	0.37	0.34
N	392	375	311	272	129	58

Notes: \* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$ . All models of the form  $y = SMD + MV + SMD * MV$ , but only the first term is reported. Std errors clustered at the deputy-convocation level. Dependent variable is the likelihood that a deputy is absent for a vote averaged over the whole convocation. All Majoritarian and double included federal list candidates included. Currently, observations before 2000 are missing.